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TRANSPORTATION

INTERNATIONAL ECONOMIC RELATIONS

32ND CEMA SESSION DESCRIBED

Moscow EKONOMICHESKAYA GAZETA in Russian No 28, Jul 78 pp 14-15

[Text] The countries of the socialist community are solving successfully problems of socialist and communist construction and are increasing their economic potential. Important questions of the further development and deepening of the fraternal cooperation of CEMA member-countries in economics, science and technology on the basis of the Comprehensive Program of Socialist Economic Integration were discussed by the participants of the 32nd session of the Council of Economic Mutual Aid, which was held 27-29 June 1978 in Bucharest.

In opening the meeting, the session's participants warmly greeted Prime Minister of the government of the Socialist Republic of Romania M. Manescu. He noted that at the present session there were to be examined questions whose solution would contribute to the development of collaboration and cooperation in the field of economics and scientific-technical activity and increase the contribution of CEMA organs to the expansion of mutual economic relations and in strengthening friendship and cooperation among our countries and peoples.

The chairman of the CEMA Executive Committee, Deputy Prime Minister of the Romanian government I. Patan presented a report of the CEMA Executive Committee on the activities of the Council of Economic Mutual Aid between the 31st and 32nd sessions of the CEMA.

The participants of the session listened to reports on the progress of fulfillment and results of implementation of the very important measures included in the coordinated plan of the multilateral integrated measures of the CEMA member countries for 1976-1980. The reports were made by the chairman of the CEMA Committee for Cooperation in the Field of Planned Activity, Deputy Chairman of the USSR Council of Ministers and Chairman of Gosplan SSSR N.K. Baybakov, and the chairman of the CEMA Committee for Scientific-Technical Cooperation, Deputy Chairman of the USSR Council of Ministers and Chairman of the State Committee for Science and Technology of the USSR Council of Ministers V.A. Kirillin.

Plans of long-term special-purpose programs of cooperation in the field of energy, fuel and raw materials, agriculture and the food industry, and machine building for the period to 1990 were reported on by N.K. Baybakov.

Questions were also discussed of further improvement of multilateral cooperation of CEMA member-countries and the activities of the Council in this field.

The head of the Soviet delegation, Chairman of the USSR Council of Ministers A.N. Kosygin made a speech.

"Respected comrades," he said, "the Central Committee of the Communist Party of the Soviet Union, the Presidium of the USSR Supreme Soviet, the Soviet government and General Secretary of the Central Committee of our party, Chairman of the Presidium of the USSR Supreme Soviet Leonid Il'ich Brezhnev personally entrusted me to pass on to you cordial, comradely greetings and wishes for success to the delegations of the fraternal countries at the session of the Council of Economic Mutual Aid.

"Our meeting is taking place at a time when the fulfillment of the current five-year plans in CEMA countries is entering a decisive phase. Exactly half of the way has been traveled, and we can point out that a good foundation has been laid for attainment of the planned goals. During 1976-1977, the national income in the countries of the socialist community grew 12 percent, industrial output--12.4 percent, and per-capita real income increased more than 8 percent. The preliminary results of the first half of this year are basically favorable. Thus one more forward step has been made in the solution of the problems of building developed socialism and communism as determined by congresses of our fraternal parties.

"Important qualitative shifts have occurred during the last two and a half years in cooperation by CEMA countries. They were expressed also in the growth of their mutual trade. As was stated in the Executive Committee report, our commodity turnover in 1977 reached 91 billion convertible rubles. This impressive figure reflects the deepening of the CEMA countries' economic ties on the basis of the development of specialization and cooperation in the sphere of material production.

"In our cooperation and in the development of the national economy of the countries of the community," A.N. Kosygin continued, "there are a number of unsolved questions. Probably, the major part of such questions logically arises from our progress, from the growth of economic potential, the rise of the technical level of industry, inasmuch as a more developed and complex economy would undoubtedly be connected with the raising of more complicated problems. But we are obliged to deal with problems of another kind, which reflect deficiencies in our work or objective difficulties arising sometimes because of different, including external, reasons.

"In recent years we have persistently sought the solution of such questions in the course of development of cooperation and deepening of socialist economic integration. The central committees of the fraternal parties are doing tremendous work aimed at uniting more closely the efforts of the countries of the socialist community and making our cooperation a more effective means in the implementation of the plans of socialist and communist construction. The results of the meetings of the leaders of the fraternal parties with Leonid Il'ich Brezhnev in the Crimea in the summer of 1977 have exactly oriented us toward this. The principal directives agreed upon in the course of these meetings lie at the foundation of the whole operation of the governments of our countries, representatives in the CEMA and the actual organs of the Council. From these positions we evaluate the results of our cooperation.

"The report of the Executive Committee presented at the session reflects the many sides of the work of the Council's organs at a very critical moment in the development of our cooperation. The development of long-term special-purpose programs is conducted within the framework of the CEMA. At the same time there are being compiled in all the countries bilateral programs of specialization and cooperation over an extended period, and preparations for coordination of national-economic plans are in progress. The work of parallel preparations of several new directions in cooperation is not simple. The task is for these directions to determine the prospects of the economic ties of the CEMA countries over an extended period, namely the whole time of operation of the long-term special-purpose programs and agreements connected with them.

"The success of our work will depend on how correctly and effectively coordination of plans and development of long-term special-purpose programs of cooperation will be achieved.

"There also require to be discussed at the session problems relating to the fact that the development of our cooperation and socialist economic integration is proceeding against the background of a whole series of negative tendencies developing within the capitalist economy, but being reflected to a certain extent in the economy of the world socialist system.

"The 1974-75 economic crisis, the deepest in the entire postwar history, opened a new period in the development of capitalism, characterized by a slowing rate, growing instability and extension of disproportions. The difficulties created by the energy, raw-material, exchange and financial crises remain unsurmountable. A number of important industries, especially shipbuilding, machine building, the chemical industry, ferrous metallurgy, and the textile industry are in a difficult position. The high rate of inflation persists, unemployment has reached a tremendous scale. Countries such as England and Sweden are still experiencing extended stagnation or a drop in industrial production and are still unable to return to the precrisis level. On the world market the competitive struggle of the monopolies has become exacerbated, the trade and exchange war is intensified. The purchasing power of the American dollar and other capitalist currencies is continuing to fall. Acute drops in market conditions hinder the expansion of exports from CEMA countries to the world capitalist market.

"In planning the development of the national economy and the organization of economic and scientific-technical cooperation, the socialist countries cannot help but take into account those changes in the world economy which reflect scientific-technical progress. We have everything necessary while relying on the production and scientific-technical potential created in the countries of the socialist community and employing the advantages of mutual cooperation to solve successfully the most difficult economic and technical problems. This is convincingly confirmed by the whole practice of our development and has found brilliant expression in a union of the efforts of our countries at mastering space and in making the first flights in the world of spaceships with international crews.

"The countries of the community possess a powerful machine-building base. It is well known that technical reequipment of our industry is being achieved primarily through machine-building production, which we are making and supplying to each other. Thus the level of domestic machine building is determined by the general technical level of fixed capital in the national economy and its productivity.

"In the course of work on long-range special-purpose programs and particularly on the program concerned with machine building, it is necessary to pay most serious attention to a more effective utilization of the industrial potential of CEMA countries and the possibilities of international socialist division of labor for a significant increase in production and mutual deliveries of new machinery of a high technical level and quality. CEMA organs, first of all the Commission for Machine Building, must in this regard significantly reorganize their work, concentrating their efforts on the chief thing--on the utilization of the advantages of mutual cooperation and specialization for the development of production of new and critical equipment."

Dwelling on the problems of development of cooperation of the CEMA countries in the field of machine building, A.N. Kosygin said further on that cooperation in machine building could be only successfully based on the most advanced technical solutions and deliveries of high-quality products. The time has come when CEMA organs must properly engage themselves in perfecting the whole economic mechanism of specialization and cooperation for the purpose of fully taking into consideration both the manufacturers and the recipients of the products. CEMA standards are to play a most important role in the development of specialization and cooperation of production and in upgrading the quality of goods.

"The main question of the present session," A.N. Kosygin said, "is the question of work on plans of long-term special-purpose programs of cooperation.

"Congresses of the fraternal parties have placed before the Council of Economic Mutual Aid and our whole community new major tasks in carrying out of the integrating process. At the 25th CPSU Congress, General Secretary of the Central Committee of our party Leonid Il'ich Brezhnev brought up the

thesis of a gradual and all-around convergence of socialist countries as a pattern of the contemporary development of world socialism. A most important direction in this work has been the compilation of long-term special-purpose programs of cooperation in key sectors of production.

"The CPSU Central Committee and the Soviet government look upon this program as documents determining long-range prospects of cooperation of CEMA countries in the solution of key problems of economic development. They concretize and develop the Comprehensive Program of Socialist Integration and lift our cooperation to a higher level, strengthening its planning basis, create favorable conditions for optimization and higher efficiency of collectivized production and for increasing the capacity of the socialist market and the stable growth of mutual deliveries of products, especially machinery and equipment. For the first time in CEMA practice, programs set economic and social tasks, which are of such major importance.

"The plans of the special-purpose programs of cooperation in the fields of fuel, energy, raw materials, foodstuffs and machine building included for examination by the session outline so far the general contours of solution of the problems and we still have to determine the material and financial resources needed for their realization and to establish the interest and scope of participation of the countries in the realization of corresponding measures.

"On this basis, in a very short time--by the end of 1979 and partially by the middle of 1979--it will be necessary to develop plans of multilateral and bilateral agreements providing for the practical realization of special-purpose programs. We are proceeding from the assumption that the contents of these programs will become part to a significant extent of the national plans of our countries for 1981-1985 and of the coordinated plan of multilateral integrating measures, while the actual programs will serve as the basis for the work of coordinating the national-economic plans.

"Special-purpose programs are not declarations but plan documents--plans of our joint activities. They will exert an influence on the formation of the economic policy of CEMA countries.

"Discussion of the questions of long-range programs at the present session should contribute to speeding up our work on the more important plans. First of all this pertains to atomic energy, to the development of which a great deal of attention is given in each of our countries.

"The Soviet Union is ready to cooperate in carrying out the program of constructing atomic electric-power stations planned within the framework of the CEMA. The fulfillment of this program requires of all of us the accelerated creation of large production capacity for the production of equipment for atomic electric-power stations, clear-cut organization of multi-lateral cooperation in appropriate branches of industry and a uniting of the efforts of the scientific and design collectives of our countries. The Soviet Union

is developing at an accelerated rate a base for the production of equipment for atomic electric-power stations and is building for this purpose the large specialized Atommash Plant and is expanding the capacities of other machine-building enterprises. Clearly, other countries are also interested in this so as to be prepared to take part in cooperation in such an important branch of machine building.

"The agreement on cooperation in production of equipment for atomic electric-power stations will require of our countries much work in retooling of machine building and the training of even more skilled cadres of machine builders. All this will contribute to the technical progress of our machine building as a whole."

Dwelling on questions of cooperation in the field of ferrous metallurgy, A.N. Kosygin noted that the requirements of CEMA countries in regard to iron ore and rolled steel at the present time are almost completely satisfied through domestic production and mutual deliveries. In order to maintain this high level, the plan of the special-purpose program provides for construction in the USSR of large enterprises for the working of iron-ore deposits.

Subsequently going on to problems connected with the preparation of a program for foodstuffs, A.N. Kosygin said: "We support the policy of satisfaction of the requirements of each country in basic food products on the basis of principally its own production. But there exist in this field a number of problems common to all the countries for whose solution we should unite our efforts. This applies first of all to expansion of the fodder base of animal husbandry and its provision of completely balanced feeds. For this reason all of us are interested in the development of effective technologies and unitized equipment for the production of protein concentrates from green plants. In this field we have the possibility of utilizing not only world achievements but also and first of all the experience of a number of fraternal countries, for example, the Hungarian People's Republic.

"An important direction in cooperation is coming to be the development of production for the export of a number of valuable products in countries possessing favorable natural-climatic conditions for this. We would like to say in this connection," A.N. Kosygin emphasized, "that we support the decision of the CEMA to develop concrete proposals on economic stimulation of the export of foodstuffs within our community. Possibly, there should be studied at the same time the possibilities of expanding the resources of agricultural production, which were concluded in cooperation with a number of developing countries.

"Implementation of the programs presented for examination at the session will depend to a tremendous extent on how we succeed in providing new production facilities with required equipment, that is, in the final analysis, with the capacity of the community's machine-building base. A first-priority task is to use more rationally and efficiently the machine-building potential of the CEMA countries and concentrate the efforts of our machine builders on the more important measures as determined by the special-purpose programs.

"In work on the program for consumer goods, the main thing,in our view, is to outline ways of significantly upgrading the quality of these goods, expanding and renewing their assortment for each of the countries of the community. This involves a very large number of problems, and it would be wrong to try to reproduce all these problems in the plan of the program. It is essential to select those which are capable of producing the greatest effect for the countries in their work of raising product quality. They could be questions of providing high-quality raw materials, including synthetic fibers, progressive brands of dyes, artificial leather, creation and introduction of high-production equipment, and so on.

"In the field of transport, the most pressing questions can possibly be seen more clearly. These include expansion of border stations and ports, cooperation in renovation of railroad and motor roads of international significance, development of international airports and joint operation of a number of international airlines.

"Today in CEMA countries," A.N. Kosygin said, "preparation is underway of national-economic plans for 1981-1985. Successful solution of the problems of social-economic development in the forthcoming five-year period requires of us to make fuller use of the possibilities of joint cooperation, which are being opened up by the long-term special-purpose programs; to tie in more closely measures outlined in them to national plans and the programs of specialization and cooperation of production being worked out bilaterally.

"Coordination of national-economic plans and the preparation of agreements for the realization of undertaken long-range programs would make it necessary to organize things in such a way that they could serve as references for the economic policy being worked out for 1981-1985 and the subsequent period by the fraternal parties for coming congresses.

"With the development of cooperation, the work of the Executive Committee is becoming significantly complicated. It is essential for its attention to be concentrated on the main key problems rather than on those which can and should be solved by other organs of the Council. In improving the work of the Council, we should evidently proceed from the fact that the Executive Committee, as the main executive organ of the CEMA, should set as its most important tasks the coordination of the work of CEMA organs and international economic organizations of our countries, observation over the fulfillment of the Comprehensive Program and of the long-term special-purpose programs, the solution of problems beyond the competence of committees, permanent commissions and conferences, and the systematic introduction into the practice of the Council of efficient and effective forms and methods of work.

"The role of the Planning Committee is also growing; it should without limiting to itself the development of all problems and agreements pertaining to their realization ably direct this work which is being performed by the proper permanent commissions. Sectorial permanent commissions, whose independence and responsibility should be increased, should become the chief developers of the said agreements.

"In the next two-three years, CEMA organs will have to prepare in the shortest possible time agreements on performance of the measures of the special-purpose programs. International economic organizations should be more actively included in the work relating to the implementation of the corresponding programs. Necessary measures will obviously be needed to be taken in this connection in each of the countries of the community.

"In light of this we attach great importance to the document prepared by the Executive Committee on the main directions of further improvement of the organization of multilateral cooperation of CEMA member-countries and the activity of the Council.

"The Soviet Union is basically ready to complete the work of plan coordination for the immediate five-year period ending in 1979, that is, a year before the start of the new planned period. This would permit to take into fuller consideration in the projects of national five-year plans agreements reached in the course of coordination and to provide for measures necessary for the fulfillment of assumed obligations.

"Our countries," A.N. Kosygin said in conclusion, "stand at the threshold of the 30th anniversary of the Council of Economic Mutual Aid, the first-in-the-world international organization of the new type, paving the way for more effective economic cooperation by the countries of socialism. During these years much has been done, much experience accumulated, and we must in full measure utilize it in our common interests.

"The Soviet delegation expresses confidence in the fact that the Council is fulfilling those new major tasks which are set before us now, first of all in connection with the realization of the long-term special-purpose programs. This will strengthen still further our socialist community and accelerate our progress in the building of socialism and communism."

The CEMA session approved the long-term special-purpose programs of cooperation in the fields of energy, fuel and raw materials, agriculture and the food industry, machine building designed for the period up to 1990. These programs constitute a further new step in the development and extension of the countries' cooperation. They open up new possibilities for still better use of the advantages of socialism for the well-being of the peoples of the CEMA member-countries.

Heads of the delegations of the CEMA member-countries signed a statement in connection with approval by the session of long-term special-purpose programs of cooperation.

At the session, the Socialist Republic of Vietnam was unanimously admitted to membership in the Council of Economic Mutual Aid. In the petition requesting the admission of Vietnam into membership of the CEMA, the government of Vietnam noted that in recent years ties between Vietnam and the CEMA, which are

becoming still closer, have received further successful development. "Vietnam," it is stated in the submitted petition, "values highly the organizational role of the Council of Economic Mutual Aid and wishes to expand cooperation and international socialist development of labor with the fraternal countries in the CEMA for the purpose of contributing to the intensified development of the national economy, raising the living standard of the population and strengthening the solidarity, unity of the socialist countries."

At the session it was noted that the countries of the CEMA successfully solve the tasks of construction of socialism and communism. On the basis of agreements reached by the leaders of the fraternal parties in 1977 in the Crimea and at other meetings, cooperation within the CEMA framework either on a multilateral or a bilateral basis is being increased. CEMA member-countries have done considerable work in realization of the Comprehensive Program. The power and prestige of CEMA countries is growing stronger.

The session's participants enthusiastically greeted the putting into a near-earth orbit of the Soviet Soyuz-30 spaceship with a Soviet and a Polish cosmonaut on board. "This," Prime Minister of the government of Romania M. Manescu said, "is a new outstanding achievement of the socialist participant-countries of the Interkosmos Program."

Chairman of the Polish Council of Ministers P. Yaroshevich called the new space experiment a symbol of the close ties and fraternal cooperation of the socialist countries. Implementation of the Interkosmos Program is a convincing proof of the effectiveness of scientific-technical cooperation of the socialist countries, a manifestation of the concern and all-round assistance of the USSR in the development of science and technology in the fraternal countries. The flight of a Polish, and before that of a Czechoslovak, cosmonaut was possible solely because of fraternal relations with the Soviet Union. P. Yaroshevich congratulated the Soviet delegation led by Chairman the USSR Council of Ministers A.N. Kosygin on the latest achievement and asked him to pass on his gratitude to General Secretary CC CPSU, Chairman of the Presidium of the USSR Supreme Soviet Comrade L.I. Brezhnev.

On 29 June, at the concluding meeting heads of the delegations of Bulgaria, Hungary, GDR, Republic of Cuba, Mongolia, Poland, Romania, USSR, Czechoslovakia signed the protocol of the session.

The head of the Soviet delegation, A.N. Kosygin, made a speech.

"The delegations of our fraternal countries," he said, "worked fruitfully these days in Bucharest, united by one aim--to contribute in every possible way to having our cooperation serve more effectively the cause of peaceful coexistence, the cause of socialism. Our joint efforts were directed at the solution of those concrete tasks which at the present stage of cooperation have come to the forefront and determine the basic content of our entire joint activity.

"A major event of this session has been the unanimous admission of the Socialist Republic of Vietnam to the Council of Economic Mutual Aid. Vietnam already has important economic ties with our countries, and these ties will undoubtedly be expanded with its economic development, inasmuch as Vietnam possesses great potential possibilities in the economic field.

"The entrance of Vietnam into the CEMA," A.N. Kosygin emphasized, "testifies to the continuing rallying of the countries of peaceful socialism under the banner of Lenin's ideas. It testifies to the fact that our friendship and fraternal solidarity with socialist Vietnam, which was tested in the years of the heroic struggle of the Vietnamese people for their freedom and independence, will become more durable and stronger.

"Once more we welcome the Vietnamese comrades and ask them to pass on our best wishes to the leadership of the Socialist Republic of Vietnam.

"The work of this session took place in a good, businesslike atmosphere. It took place in a spirit of comradeship, mutual respect and trust, which is characteristic of the relations among communist and workers parties of our countries and among their governments. All this is profoundly proper, since we are building our relations on the indestructible principles of Marxism-Leninism and socialist internationalism because we are going forward together toward our common communist ideals."

In the name of the session's participants, A.N. Kosygin expressed sincere gratitude to the Central Committee of the Romanian Communist Party and the Romanian government for the great care which they gave to the holding of the 32nd session of the Council of Economic Mutual Aid in Bucharest.

In order of rotation, the next, or 33rd, session of the Council of Economic Mutual Aid will be held in Moscow. "The Central Committee of our Communist Party, the Presidium of the USSR Supreme Soviet and the Soviet government," A.N. Kosygin continued, "will do everything necessary to see to it that the 33rd session of the CEMA, at which the 30th anniversary of our organization will be commemorated, takes place in the best possible atmosphere.

"The jubilee session," he stated, "should become an important landmark in the fulfillment of the long-term special-purpose programs and the concrete agreements relating to them. All of us are deeply interested in having our cooperation in this matter crowned with success.

"This success will be determined by the everyday activity of each country relating to the implementation of the decisions made today, by the activity of the Executive Committee and other organs of the Council of Economic Mutual Aid and its Secretariat. And as always, the basis of our joint success will be our unity, our resolution to carry out the coordinated political policy of our fraternal parties in all fields of cooperation.

"Permit me to wish you, respected comrades, successful, fruitful work in the interests of strengthening our collective organization, in the name of the prosperity of each fraternal country and the entire socialist community," A.N. Kosygin said in conclusion.

The head of the Vietnamese delegation, Le Thanh Nghi, in the name of his government expressed gratitude for the admission of socialist Vietnam to membership in the CEMA and assured that Vietnam would fulfill strictly its obligations to the CEMA in accordance with the principles of Marxism-Leninism and proletarian internationalism.

In his concluding remarks, presiding M. Manescu expressed satisfaction with the successful results of the work of the session and thanked all of its participants.

The session adopted a communique, which is published in the press.

The next session of the CEMA will be held in 1979 in Moscow.

On this, the 32nd session completed its work.

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FORMATION OF JOINT SOCIALIST PRODUCTION ENTITIES DISCUSSED

Moscow IZVESTIYA AKADEMII NAUK SSSR, SERIYA EKONOMICHESKAYA in Russian
No 4 Jul-Aug 78 pp 68-79

[Article by A. I. Zubkov: "International Socialist Joint Production Entities"

[Text] The article discusses the peculiarities of the cooperative ties among the CEMA countries which lead to the formation of international socialist production entities. It analyzes certain problems in the administration of these production entities, including those within the framework of international economic associations and enterprises which are jointly operated. It states the basic trends in the improvement of the economic mechanism of the functioning of international production entities. Special attention is devoted to communicating the experience gained in the activities of the international organizations of the CEMA countries within the sphere of material production.

In the process of socialist economic integration, the economic interaction of the CEMA countries is becoming intensified. The economic ties among those countries are becoming increasingly diverse and complicated. The development of cooperation among the socialist countries poses new problems, the solution of which does not have any precedents. In February 1977, at a meeting with the leaders of the academies of sciences of the socialist countries, General Secretary of the CPSU Central Committee, Comrade L. I. Brezhnev pointed out, in particular, the ". . . problems of creating international socialist joint production entities, which problems require the development of legal and economic norms governing their activities" [1].

The formation of joint production entities is one of the most important and most promising trends in socialist economic integration, a trend that was caused by the striving for the unification of efforts for purposes of accelerating the development of the productive forces of the CEMA countries. Joint production entities hold large potential opportunities for the

coordinated and mutually advantageous use of financial, material, labor, and other resources of the socialist countries, and the effective satisfaction of the growing needs of the cooperating countries for new and traditional types of output. The study of the economic peculiarities of the formation and development of international socialist joint production entities is of vital importance both in a scientific and in a practical regard.

The economic literature of the socialist countries has not yet illuminated with sufficient detail many of the problems that are linked with the organization and activities of the joint production entities. The very concept "international socialist joint production entities" has not yet been crystallized in science. There has been insufficient study of the question dealing with the attributes by which various production entities that are developing within the framework of the cooperation among the socialist countries can be related to international socialist joint production entities[2]. In the official CEMA documents that have been published, one fails to encounter the term "international socialist joint production entities." The Comprehensive Program for Socialist Economic Integration contains no statements in which there might be an indication of such production entities, but in a number of various types of international economic organizations one finds the names of joint enterprises of the socialist countries[3]. A number of works published in the USSR and in the other socialist countries are devoted to the study of the economic mechanism of the functioning of joint enterprises[4]. However, "joint enterprises" and "international socialist joint production entities" are not identical concepts. The latter is more "voluminous"; it subsumes joint enterprises.

International socialist joint production entities, in our opinion, represent production entities of socialist countries which cooperate on the international level both under conditions of the retention of the state ownership of the means of production, and under conditions of the unification of the property of the countries within the framework of joint enterprises. The interbranch ties among the socialist countries (for example, shipments of metal from some countries to others) have not yet led to the creation of international joint production entities, inasmuch as this kind of interaction is not based on cooperation within the branch or the production entity, and the latter is one of the attributes of joint production.

One of the varieties of international socialist joint production entities might be specialized branches and production entities, taken separately, within which international cooperation in the production of parts and in technological processes has been established and is developing, as well as that cooperation that is based on specialization by object. Forming the basis of another variety of joint production entities of the socialist countries is that ownership which has not set aside specifically for the individual state, but, rather, international ownership, which arose as a result of the joint construction and joint operation of projects.

The practical experience gained in the cooperation among the socialist countries provides a number of examples when international socialist joint production entities of both varieties have arisen and functioned.

International joint production that is based on technological cooperation formed in the chemical industry of the USSR and Hungary. On the basis of a coordinated program, the necessary capacities were created at the chemical-metallurgical combine in Kalusha (Ukrainian SSR) and the petrochemical combine in Leninvaros (Hungarian People's Republic). The enterprise in Hungary has been specialized in the production of ethylene and propylene, which are processed in the Hungarian People's Republic and in the USSR. At the Kalusha Combine, they are used to produce polyethylene, polystyrene, and other chemical products, which are partially shipped to Hungary. The combines in Leninvaros and Kalusha are linked by a special pipeline which is used to transport the ethylene. This kind of concentration of specialized production entities reduces the amount of time needed for construction and provides a large saving of capital investments. In Hungary alone, this division of labor made it possible to reduce by approximately one-half the investments for construction.

Similar cooperation is carried out between the GDR [German Democratic Republic -- East Germany] and Czechoslovakia. From an enterprise in the city of (Belen) (GDR), ethylene and propylene are sent for further processing to the city of Zaluzi (Czechoslovakia). Shipments of corresponding output from Czechoslovakia to the GDR have been organized. This kind of cooperation has assured a saving of 30 percent in investment funds. It is planned to construct processing capacities in the GDR, and to expand the production of ethylene and propylene in Czechoslovakia. Thus, the cooperation is broadening the framework: the additional volumes of ethylene that are necessary for the GDR will be delivered over the operating pipeline from Czechoslovakia.

The specialization and cooperation of production which have been coordinated so thoroughly, and the flexibility of the ties, which can change the content and direction, require a well-organized, efficient administration of the cooperation. Each of the sides, while retaining ownership of the production entity located on its territory, organizes the administration in conformity with its national norms. But this is no longer sufficient. National production that is linked in the closest manner with the partner requires the complete consideration of the processes of the functioning of production in the other country. There arises a need for collective administration of production: a need for the coordinated creation of the necessary reserves of raw materials, semifinished goods, finished output, the organization of their flows in both directions, the supervision and coordinated change in the quality and technical parameters of the output to be delivered, etc. Collective administration does not necessarily cause the creation of any international organ -- council, conference, bureau of representatives of the various sides, etc. It can be limited to the immediate, efficient communication between the various sides, which assures the solution of any joint production tasks that might arise. But in a number of instances there is no preclusion of the desirability of collective administration by means of the creation of a common council, board of directors, etc., within the framework, for example, of international economic organizations (Assofoto, and others).

The main thing in the administration of international socialist joint production entities is the providing of the effectiveness of the economic mechanism and, primarily, the planned activity. The production entities that have been named can develop on the basis of the further improvement of joint planning, which is oriented at long-term planning. An analysis of the peculiarities of the cooperation between the USSR and Hungary, East Germany, and Czechoslovakia in the chemical industry attests to the fact that specialization, and, consequently, the trends in mutual cooperation, can change substantially at individual stages. In this regard, joint planning can reflect not only the final goal -- the volumes of production and the reciprocal cooperative shipments of output -- but also the coordinated investments in the national portions of the international socialist joint production entities. Without this, their technological and technical interaction would be impossible. Enterprises are provided with equipment that is not only domestically produced, but also imported. It is far from always that the delivered semifinished goods and finished output can be "written into" the technological process of the cooperative production. The coordination of the investment capabilities in the process of joint planning makes it possible to foresee and to eliminate any undesirable consequences of incompatibility that is noted.

A number of international socialist joint production entities formed or are forming in the machine building of the CEMA countries. For example, the Unified System of "Ryad" [Series]-Type Electronic Computers includes as participants dozens of plants in the USSR, Bulgaria, the GDR, Hungary, Cuba, Poland, Romania, and Czechoslovakia. The cooperation has provided for the large-scale development of production. Prior to 1970 the CEMA countries produced approximately 30 types of second-generation electronic computers. They were incompatible with one another with regard to many technical parameters. Within the framework of the Unified System, the change-over has been made to the production of eight types of electronic computers, but of the more improved third generation, which interface with one another with regard to all technical data. In 1971-1975 the exchange of means of computer technology among the CEMA countries constituted approximately 3 billion rubles. In 1976-1980 the reciprocal shipments of these means are increasing by a factor of approximately 2.7.

The specifics of the production of output in this kind of international joint production bring about the objective necessity of carrying out a scientific-technical policy that is well coordinated among the participating sides. This circumstance, from the very beginning, has caused the creation of a common council of the chief designers. That council carries out the coordinated measures for the introduction of the Unified System into the national economy of the socialist countries. This practice, it would seem, could be extended to certain other international joint production entities in machine building. It is well known that one of the consequences of scientific-technical progess is the constantly growing nomenclature of production in machine building and other branches. The cooperation among the countries makes it possible not only to deepen the international division of labor in their production, and, as a result of this, to intensify the concentration and increase the effectiveness of the production of articles,

but also to provide the standardization of machinery, assemblies, and units, to see within them interconnected links of coordinated systems, series, groups, etc. Herein lie tremendous opportunities for preventing the increase in production nomenclature which is excessive and which is technically and economically unsubstantiated, and for increasing its effectiveness. The development and implementation of a coordinated or unified scientific-technical policy among the CEMA countries has favorable prospects for the development of the production of agricultural and road-building machinery, machine tools, electrical-engineering, and other machine-building production. In this regard, great importance is attached to the Agreement which was signed in 1977 for the multilateral international specialization and cooperation in the development and production of groups (series) of semiconductors and integral microcircuits[5].

The importance of international socialist joint production entities is intensified when one is implementing the long-term specifically earmarked programs of cooperation. The specialization and cooperation of production, as well as the unification of investments and other resources for the purposes of the further extension of the production of necessary output will continue, over the long view, to be very important methods for the development of integration in the production sphere. The expansion of joint production entities makes it possible to resolve the most large-scale economic problems that are common to the socialist countries.

For purposes of the optimal solution, for example, of the fuel and power problem, there arises the necessity for the further increase in efficiency in the placement of power-intensive production entities within the region of the CEMA countries[6]. The high share of the expenditures for energy in the production costs of output requiring a large amount of energy (up to 15-20 percent in certain chemical production entities and as much as 35-40 percent in individual production entities in nonferrous metallurgy) limits the opportunities for the effective expansion of its production in the countries having at their disposal relatively small and expensive resources of fuel and importing energy resources. The concentration of power-intensive production entities in countries provided with large-scale and effective energy resources is more desirable, but it requires considerable investments for the development of the fuel and energy base and for the creation of the corresponding capacities.

The coordination of the interests of the countries with respect to the more efficient placement of power-intensive production entities is possible within the framework of international joint production entities. Thus, some countries can specialize in the production of a number of chemical semifinished goods requiring a large expenditure of energy; others can specialize in the production of finished chemical materials, articles made from them, and the production of small-tonnage and other types of chemical output. The capital investments made by the cooperating countries can be more or less equal.

In the process of the further development of international joint production entities, there arise a number of problems pertaining to the improvement of

the economic mechanism of the functioning, improving the overall effectiveness of their activities, and intensifying the mutually advantageous nature of the cooperation. What remains of vital importance, in particular, is the improvement of the pricing of the output which is the object of specialization and cooperation.

As the basis of the prices of the output that is formed by way of cooperation between the participants in the international joint production, one takes the prices of the basic worldwide commodity markets. This approach as a whole is a reasonable one. It presupposes that the prices of the finished output that is being reciprocally supplied, as a rule, will not be substantially higher or lower than the prices of finished output of corresponding quality on the basic worldwide commodity markets. As a result there is a preclusion of the preferential interestedness of certain participants in the sale or acquisition of analogous finished output at other commodity markets to the detriment of the interests of the remaining participants in the joint production. But this advantage in the use of worldwide prices is not unlimited. For example, the prices of cooperative shipments of assemblies, parts, semifinished products, etc. among the enterprises of international capitalist companies that are taken separately prove in many instances to be inaccessible for detailed study. Therefore they cannot be used as a reliable basis for pricing in the event of cooperative shipments within the framework of the international joint production entities of the socialist countries.

In the press of the socialist countries there has frequently arisen the question of improving the pricing of output in the event of specialized and cooperative production, which is something that has direct relationship also to the output to be manufactured under cooperative terms within the framework of the international joint production entities[7]. It seems to us that when resolving this problem, one can keep in mind the following considerations.

First, the prices of finished output to be produced with the use of cooperative shipments of assemblies, units, parts, etc., can be based on the prices of analogous output in the basic worldwide commodity markets. This will preserve the necessary relationship between the prices of reciprocal trade and the prices of the basic worldwide commodity markets. It is desirable, with this approach to pricing, to intensify even further the conformity between various prices depending upon the quality and the technical parameters of the finished output to be sold.

Secondly, among the prices of the reciprocal trade in finished output and the prices of cooperative shipments of component assemblies, units, parts, etc., it is desirable to establish a close dependence by means of the coordinated development and the adoption by all the cooperating participants (on a multilateral basis) of a kind of price list. In the latter, the prices of the cooperative shipments of parts and units can be established in a percentage relationship to the price of corresponding finished output, as well as in collective currency (convertible rubles). With this approach,

every change in prices for the component articles, which change has been coordinated among all the participants in the cooperation (on a multilateral basis) should cause a corresponding change in the previously adopted prices of finished output, and vice versa. This change can occur for a number of reasons that are difficult to foresee over the long-term view. Therefore, the coordinated correlation between them should preferably be established for a definite period of time, for example, for a five-year period. It is also important to emphasize that the multilateral coordination of the price correlation with cooperative production interrelates closely the interests of all the participants and increases the responsibility borne by each participant toward all the others, rather than simply the responsibility toward the one to whom the component articles are being supplied and from whom the finished output is being delivered.

Thirdly, one can take as the basis of the correlation of prices of the component articles and the finished output on the basis of formal agreements among the participants in international cooperation the planned computed expenditures (production costs, the calculated expenditures, or other indices coordinated by the participants) for the finished output, in which expenditures it is necessary to isolate as component parts the expenditures for the articles to be used as components in the finished output. The planned expenditures for their maintenance should preferably be tied in with the real conditions of management by the participants in the international association, especially in the country manufacturing the finished output. The planned computed expenditures should also be determined with a consideration of the technical progress during the period of operation of the adopted prices (for example, the five-year period).

The orientation on the prices of the basic worldwide commodity markets as the basis for determining the prices of finished output in the reciprocal trade of the participants in international joint production entities and the computed expenditures for determining the correlation between the prices of finished output and the component articles can prove to be a step forward in the direction of the joint accounting of the costs borne by the participants in the production. The computed expenditures, apparently, cannot be of a strictly abstract nature. When determining them, the participants in the international joint production can orient themselves on the production costs that have actually formed there or that are planned there.

The problem of the further improvement of pricing and the entire economic mechanism is of particular importance for such a type of international socialist joint production entities as the international economic associations, which include as participants national enterprises, associations, trusts, combines, and other subjects of civil law. The expenses for the maintenance of the apparatus at these associations (the apparatus of the board of direction, etc.) are covered by the current payments made by the participating sides. The regulations and agreements dealing with their creation stipulate that, with the changeover to economic accountability [khozraschet], they can use their own income to cover their expenses. The first such association

-- Interatominstrument -- was created in 1972. Subsequent associations to arise were Interatomenergo, Intertekstil'mash, Interkhimvolokno, Assofoto, Domokhim, and other multilateral and bilateral international economic and scientific-production associations. The basic direction in their work is the coordination of the actions of the participating organizations and the joint economic activity within individual branches of production, technical development, etc.

The possible content of the functions of these organizations can be seen by the example of Interatominstrument -- an international economic association whose members are 15 production and trade organizations in Bulgaria, Hungary, the GDR, Poland, the USSR, and Czechoslovakia[8]. The participation of national organizations in the international association does not deprive them of any independence with regard to property, organizational structure, or legal status. The members of the association carry out economic activity in their own name and under their own responsibility in conformity with the legislation of their own countries.

Interatominstrument carries out coordination and economic activities. The coordination activities are directed at developing the multilateral specialization of production. One result of these activities is, in particular, the first multilateral treaty -- concluded by the participating countries in 1976 -- governing the specialization in the production of 22 articles, the volume of commodity turnover for which exceeds 20 percent of the overall total of the export of output carried on the products list of the associations. Subsequently it is planned to change over from the specialization in the production of individual articles to the specialization in the production of groups of them. By 1980 it is planned to increase the share of specialized output in the export to 50 percent for the entire products list.

The participants in the association represent the interests of their national research and construction-planning organizations. The cooperation among the participants in the association made it possible to develop and approve plans for the coordination of scientific-research and planning-and-designing operations for 1976-1980.

The coordination of the reciprocal foreign-trade activities of the members of Interatominstrument is carried out in various forms: the carrying out of work to prepare the draft versions of five-year plans for commodity turnover; the coordination of recommendations pertaining to reciprocal shipments; the organizing of meetings among representatives of the foreign-trade organizations for the purpose of coordinating questions of implementing contracts for the forthcoming year; the organization of annual exhibitions and sales of articles; etc. The results of the coordination of the reciprocal shipments were, for the most part, included in the trade agreements concluded among the countries for 1976-1980.

The basic type of the independent economic activities of Interatominstrument is the creation of bases (association branches) in the participating countries for the warranty and postwarranty servicing of the equipment which is the product list of the association. Three such branches are already

functioning: in the cities of Dubna (USSR), Zielona Gora (Poland), and Pleven (Bulgaria)[9]. The funds for the creation of the branches were allocated by the association from the statutory fund, which was formed, in its turn, by the participating sides during the formation of Interatominstrument. The basic questions pertaining to the activities of the branches are regulated in the constituent documents uniformly. The draft versions for the branch plans are developed independently with the preliminary coordination of certain positions with the competent agencies in the country of location. The association council approves the branch plans and the basic control indices (gross income, gross profit, deductions from the branch profits to be paid to the association, etc.).

The branches are part of the system of material-technical supply in the country of location. Purchases in other countries are made through the foreign-trade organizations of the country of location. The technical servicing of the equipment which is on the product list of the association is carried out by the branches on a contractual basis with enterprises that require their services, and in conformity with the procedure established in the country of location. Thus, in Poland, the branch establishes contacts with the national economic organizations directly; in USSR, according the procedure coordinated with the Izotop Industrial Association and the Tekhsnabeksport Foreign-Trade Association, which are members of Interatominstrument.

The branches function under terms of economic accountability [khozraschet]. Soon after the beginning of their economic activity, they became self-paying. The established part of the profit is transferred to the association. However, the funds received are insufficient for converting the entire association to economic accountability. Part of the expenditures of the association is covered by payments made by the cooperating sides. The association carries out work to develop independent economic activity. In particular, they prepare recommendations concerning the construction of the Interatominstrument Plant, at which it will be possible to manufacture apparatus based on nuclear physics for atomic electric power stations[10].

The administration of the international economic association should be directed at the object of their activity -- the production -- and, in particular, at its international specialization and cooperation. This circumstance presupposes the desirability and necessity of intensifying the direct contacts. It is vitally necessary to develop direct economic ties among the industrial associations, combines, and other major production formations in the socialist countries.

In the Comprehensive Program of Socialist Economic Integration it is noted that the "CEMA member countries will create, both within the countries and in reciprocal economic and scientific-technical cooperation, the appropriate economic and legal prerequisites for the development of direct ties among their ministries, departments, and other state agencies, economic, scientific-research, and planning-and-designing organizations"[11]. These prerequisites for the development of direct ties are being created on a planned basis in

the CEMA countries. In the Soviet Union the branch ministries are participating more and more actively in the deepening and expansion of the scientific-technical cooperation, the preparation, and the implementation of measures involving specialization and cooperation, etc. With the completion of the formation of associations in the industry of the USSR there arises the necessity of their more complete participation in direct economic ties with the corresponding associations in the other CEMA countries. This problem was considered by a number of Soviet economists[12]. In their approach to it, they all proceed from the invariability of the rigid observance of the principle of the state monopoly in foreign trade. It is also justifiably noted that the subjects of the foreign-economic activity cannot be the economic organizations at any level, but only the very largest enterprises or associations. The greatest opportunities for expanding the participation in the specialization and cooperation of international production can be linked, apparently, with the creation of large-scale industrial and scientific-production associations designed for export purposes and with the foreign-trade offices attached to them.

The consistent solution of the questions of combining the production and foreign-trade activities requires, on the one hand, the reinforcement of centralized planning, and, on the other hand, the creation of increasingly favorable conditions for releasing the initiative of the industrial associations in the field of cooperations with their partners in the socialist countries. In this regard, a factor that can be of great scientific and practical importance is the state planning for the national industrial associations of quotas for the export and import of the specialized output for the partners in the international economic associations[13]. This approach assures the observance of the state interests from the point of view of the directedness of the foreign-economic ties, the volumes of foreign trade, the structure of the balance of payments, etc. At the same time, it preserves the centralized approach to the solution of the questions of pricing, the extension of credit, and other economic terms for the management of foreign trade. On the other hand, the national industrial associations prove to have a direct self-interestedness in searching for those versions of cooperation which will guarantee the greatest economic benefit. For these purpose one can use a definite system of economic regulators for purposes of the optimal combination of the interests of the state and the production entity.

The development of direct production-trade and scientific-technical ties among the partners in the international economic association, with the formalization of those ties in the form of treaties governing specialization and cooperation, substantially expands the opportunities for administering the interrelated production process, and for converting the production programs of the individual participants into an organic component part in the overall production program. The development of cooperation at the level of the international economic associations presupposes the solution not only of the problem of developing direct ties among the partners. Increasing the effectiveness of the administration of the international

socialist joint production entities depends upon the solution of a number of problems both in the field of the international mechanism of integration and in the field of the state mechanisms of management.

Forming the basis of one of the varieties of international socialist joint production entities is the direct combination of the national property of several states (financial, material, and other means), which leads to the creation of international joint enterprises in the CEMA countries. At the present time, the following are functioning or being created: the Polish-Hungarian Haldex Society in the coal industry; the Bulgarian-Hungarian Intransmash Society in the area of the mechanization and automation of intraplant transportation; the Druzhba [Friendship] Polish and East German cotton-spinning factory; the Erdenet Mongolian-Soviet copper-molybdenum mining and concentration combine and the Mongolsovtsvetmet enterprises engaged in the mining and processing of fluorspar and nonferrous metals in the Mongolian People's Republic; etc. The direct unification of the means available in the countries is one method of creating international joint enterprises. Another method is the creation of joint projects by drawing on the statutory funds of international economic associations (for example, those of branches of Interatominstrument). In the latter instance, the funds available in the countries are united not directly, but by way of the association funds.

The unification of funds within the framework of joint enterprises, as with all other forms of cooperation, does not lead to the creation of national formations in the socialist economy, inasmuch as all the projects are under the complete supervision and collective administration of the participants. Within the framework of the joint enterprises, various instruments for the economic mechanism of integration are being used successfully. On the practical level, such a kind of activity as the joint planning of production has been completely introduced. The prices of output produced by joint enterprises completely reflect the costs of producing them and include the coordinated profit; this is something which does not yet exist under other forms of cooperation. The projects operate under conditions of economic accountability. The joint enterprises can, with complete justification, be included among the most highly developed types of international socialist production entities, although the extent of this kind of cooperation is, as yet, not great.

The economic-accountability nature of the activities of the joint enterprises presupposes the accurate accounting of all production costs. The latter are determined, as a rule, on the basis of the norm lists in the country of location of the joint enterprises. But there may also be exceptions. For example, when a state of agreement is reached between the participating sides, use is sometimes made of depreciation norms that are not national ones, but, rather, are those that have been coordinated by the participants, for certain types of equipment, as, for example, at the Druzhba enterprise.

With agreement on the part of the sides, certain specific funds, other than the economic-incentive funds, are created at joint enteprises by making

deductions from profits. These include, for example, the reserve fund, to cover any shortage of financial funds that might arise during any period. This approach attests to the self-interestedness of the cooperating sides in assuring consistent economic accountability in the activities of the joint enterprises, and in eliminating the necessity of having subsidies granted to them in the event of unfavorable conditions pertaining to production, the purchase of commodities, or the sale of output.

Joint enterprises are a mobile form of cooperation with regard to the use of personnel. There has been an accumulation of experience in the operation of enterprises chiefly with the personnel of a single country -- the country of location of the project -- and of two participating countries. One can expect that, as there is increased use, in the CEMA countries, of the intensive factors of economic growth, one will see at the joint enterprises an intensification in the use of personnel from all the participating sides. In particular, the creation of joint enterprises not only on a bilateral, but also on a multilateral basis is not precluded.

In practice, joint enterprises use both foreign-trade prices and wholesale prices. When wholesale prices of the country of location are used, the joint enterprises "harmonize" more consistently with the system of the national economy of that country. The detrimental influence of the imperfection of the wholesale prices upon the activities of the joint enterprises within definite limits is eliminated by means of various payments made into the budget of the country of location.

Joint enterprises cannot produce by themselves all the commodities that are required for their functioning. They need equipment, raw and other materials, fuel, etc. The participants at the enterprise strive to organize the supply of these products primarily in their own countries. The shipments of commodities by the participating sides are possible at contract prices. It would seem to be less reasonable to effect such shipments at the wholesale prices that are generally applicable in those countries, since the joint enteprise in such an instance acts as an importer with respect to the national economies. If the wholesale price, for example, of a particular type of materials is, in the participating country, lower than the contract price, that country will scarcely have a self-interestedness in delivering that material at its own domestic price to the joint enterprise, knowing beforehand that the finished output manufactured with the use of that material will be sold by the enterprise in all the participating countries, and possibly even in third countries. In this instance the shipments at the wholesale price will, factually speaking, mean a unilateral subsidizing of the joint production. There is no preclusion of the version when the wholesale price of the material might prove to be higher than the level of the contract prices. Then those shipments will be not effective for the joint enterprise. Consequently, for the latter there may arise the necessity of using another source of supply (from other participating countries or third countries), where the material can be purchased at the contract price or the world price.

The pricing of the finished output produced at international joint enterprises, practically speaking, takes into consideration the planned costs of producing them. In some instances the prices, reflecting the planned costs and the profit coordinated by the participants, do not coincide with the level of the contract prices that are generally applicable in the trade among the CEMA countries for the corresponding output (for example, at the Haldex Polish-Hungarian enterprise). If the actual costs prove to be lower than the planned ones and the obtained profit exceeds the coordinated profit volume, the remainder of the profit is distributed among the participants, and the price of the output during the subsequent periods is established at a lower level. In other instances, when agreed upon by by the participants, the output produced at the joint enterprises must be sold at the contract prices (for example, at the Erdenet Mongolian-Soviet enterprise). But even in these instances the price of the output produced at the joint enterprises reflects the production costs, and covers those costs, while the profit, excluding its coordinated part that is to remain at the disposal of the joint enterprise, is distributed among the participants. Thus, the establishment of the prices of output produced at joint enterprises in conformity with the costs and the profit that is necessary for the normal functioning of the production is a most important condition in pricing.

In those instances when the output produced at the joint enteprise is sold not only in the participating countries, but also in other countries, the price of that output, obviously, should be at the level of the ordinary foreign-trade prices (contract or worldwide). The joint enterprises created by the CEMA countries, for the time being, as a rule, deliver their output only to participants. But if one has the long-term situation in mind, it is impossible to preclude the possibility of selling the output on the markets of other countries, including the industrially developed capitalist countries and the developing countries. The unification on this basis of the efforts of the interested CEMA countries can make it possible to increase the effectiveness of their export activities.

When, at joint enteprises, use is made of personnel from a single country, in particular the country of location, the state budget receives the surplus product created by the labor of the citizens of that state. The extent of the deductions paid into the budget is determined in percentages of the extent of the wages estimated in the costs. The deductions are made either from the profit of the joint enteprise, or they are a kind of element in the current production costs at the joint enterprise. In the latter instance, the deductions are of a more guaranteed nature, inasmuch as they do not depend upon the rate of profitability of the joint enterprise.

The computation of certain deductions to be paid into the budget of the country of location of the joint enterprises represents certain difficulties. The latter include, in particular, the payment for the rental of the territory occupied by the joint enterprises, and the rental payments for their use of the raw-material resources. These payments can occur by analogy with those which are carried out by the national enterprises. However, the national enterprises, by their payments, in a number of instances compensate only partially for the corresponding national-economic expenditures.

The joint enterprises should completely compensate those expenditures which are linked, for example, with the granting to them of plots of territory and, correspondingly, with the necessity of increasing the fertility of the soil on other plots. In instances when the joint enterprises occupy unproductive plots, such payments can also have a symbolic importance. In practice, the rental payments payable to the country that owns the raw-material resources for their use by the joint enterprise are, in certain instances, equated to part of the contribution of the other country for the creation of the joint enterprise, and therefore are not reflected in the reciprocal settlements. Thus, during the creation of the Haldex Polish-Hungarian enterprise, which processes the tailings of coal mines in the Polish People's Republic, the cost of the Hungarian technical plans and licenses for the processing of the tailings was equated to the value of the Polish tailings[14].

For the most part, the joint enterprises are linked with the use of raw-material resources. This is explained by the short supply of raw materials in a number of the CEMA countries, the large requirements of capital and assets to produce them, etc. These circumstances predetermine also the further prospects for the arising of new joint enterprises. However, it would seem to be unreasonable to link their activities simply with the production of raw materials. Under conditions of the scientific-technical revolution, when there is an intensification of the necessity for intergovernmental exchange of advance technology and the rapid and effective extension of the production of new types of products, there can be an intensification of the need to create joint enterprises in the processing industry (machine building, chemical industry, etc.).

The activities of the joint enterprises are substantially influenced by the condition of the entire economic mechanism of the cooperation among the CEMA countries, particularly, the degree of development of multilateral settlements with the aid of collective currency (convertible ruble), the use of economically substantiated and mutually coordinated correlations among the national currencies themselves and with the collective currency. For the time being, these problems have not been completely resolved for the settlements of the one-time and current expenditures at the joint enterprises. In each specific instance, use is made of currency-conversion coefficients that have been specially computed and coordinated by the participants. For example, at one of the enterprises, the capital investments and current expenditures are computed with the aid of 14 basic and more than 30 auxiliary coefficients. This circumstance complicates the joint activities. With the further development of the economic mechanism of cooperation, and with the introduction of order into the financial and currency settlements, the creation of new joint enterprises and the functioning of the already existing ones will receive additional incentives.

International socialist joint production entities are developing in various forms and in various branches. Many questions linked with their activities deserve further careful attention on the part of economic science.

FOOTNOTES

1. PRAVDA, 18 February 1977.

2. In certain research, a close approach has been made to these questions when analyzing the tendencies in the development of the interrelationships in the branches of the CEMA countries and the problems of the international administration of cooperation in the branches and their complexes. See, for example, "Otraslevaya sotsialisticheskaya integratsiya" [Branch Socialist Integration], Moscow, Nauka, 1976, pp 10-12, 122-124, 141-146, etc.

3. See "Kompleksnaya programma dal'neyshego uglubleniya i sovershenstvovaniya sotrudnichestva i razvitiya sotsialisticheskoy ekonomicheskoy integratsii stran--chlenov SEV" [Comprehensive Program for the Further Deepening and Improvement of Cooperation and the Development of the Economic Integration of the CEMA Member Countries], Moscow, Politizdat, 1971, p 67.

4. See, for example, the monograph written by a group of Soviet and Bulgarian scientists: "Problemy funktsionirovaniya sovmestnykh predpriyatiy stran SEV" [Problems of the Functioning of the Joint Enterprises of the CEMA Countries], Sofia, Nauka i iskusstvo, 1975 (in Russian).

5. See EKONOMICHEKSYA GAZETA, No 14, 1978, p 20.

6. See EKONOMICHESKOYE SOTRUDNICHESTVO STRAN--CHLENOV SEV, No 1, 1977, p 43.

7. The necessity of creating a system of cooperative prices is acknowledged by a number of economists. See, for example: Pekshev, Yu. A., Ladygin, B. N., "Socialist Economic Integration -- A Process That Can be Administered in a Planned Manner," VOPROSY EKONOMIKI, No 11, 1974, p 75; Shikova, I., "Problems of Prices of Specialized and Cooperative Output in the Trade Among the CEMA Member Countries," V"NSHNA T"RGOVIYA (People's Republic of Bulgaria), No 7-8, 1976, pp 19-24.

8. See "Multilateral Economic Cooperation Among the Socialist States," Moscow, YURIDICHESKAYA LITERATURA, 1972, pp 617-624.

9. See VNESHNYAYA TORGOVLYA, No 7, 1977, p 31.

10. EKONOMICHESKOYE SOTRUDNICHESTVO STRAN--CHLENOV CEV, No 3, 1977, pp 91-92.

11. "Kompleksnaya programma dal'neyshego uglubleniya i sovershenstovaniya sotrudnichestva i razvitiya sotsialisticheskoy ekonomicheskoy integratsii stran--chlenov SEV," p 58.

12. See, for example: Shiryayev, Yu. S., "Ekonomicheskiy mekhanizm sotsialisticheskoy integratsii" [Economic Mechanism of Socialist Integration],

Moscow, Ekonomika, 1973, pp 151-161; Kormnov, Yu. F., "Spetsializatsiya i kooperatsiya proizvodstva stran SEV" [Specialization and Cooperation in the Production of the CEMA Countries], Moscow, Ekonomika, 1972, pp 239-255.

13. See VOPROSY EKONOMIKI, No 3, 1975, p 66.

14. Apro, A., "Sotrudnichestvo stran--chlenov SEV v ekonomicheskikh organizatsiyakh sotsialisticheskikh stran" [Cooperation of the CEMA Member Countries in the Economic Organizations of the Socialist Countries], Moscow, Ekonomika, 1969, p 84.

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HUNGARIAN AID FOR MOSCOW OLYMPICS

Moscow MOSKOVSKAYA PRAVDA in Russian 30 Aug 78 p 3

[Article by S. Zakharov, NOVOSTI special correspondent (Budapest--Moscow): "Olympic Orders"]

[Text] Sixty million rubles is the total sum of Olympic orders placed by the Soviet Union in fraternal Hungary. This was disclosed in a talk with journalists by Imre Csok, the Moscow representative of the world-famous Hungarian foreign-trade /Elektroimpeks/* enterprise, which, incidentally, had been the first to be awarded the designation of official supplier for the 1980 summer Olympic games.

"Between the USSR and Hungary," he said, "broad trading ties in the most diverse fields were established long ago. Cooperation between our /Elektroimpeks/ and the Soviet Mashpriborintorg is proceeding successfully. Over the course of many years, we have been sending to this fraternal country radio-television equipment and data processing equipment. In regard to Olympiad-80, big contracts were concluded for delivery to the Soviet Union of information boards, as well as acoustic and television equipment for the teleradio complex under construction at Ostankino."

On arriving in Hungary, I recalled my friend Csok's advice to visit the enterprises working on Olympic orders for /Elektroimpeks/.

My first meeting was with the commercial director of /BVKM VILLIS/--an association making electrical installations and apparatus and manufacturing illuminated indicator boards--Gyorgy Sombor.

"We pay special attention," he said, "to the Olympic orders. We do not think of them as simply a commercial deal, but most of all as our international duty. The fact is that this will be the first Olympics to be held in a socialist country. Our Komsomol organization has assumed sponsorship in the fulfillment of the orders."

Illuminated indicator boards bearing the brand name /VBKM VILLIS/ have long gained deserving fame throughout the whole world. The first such device was installed in Budapest on the /Nepstadion/ a quarter of a century ago. Two illuminated screens have been working faultlessly since 1956 at the Stadium imeni Lenin in Luzhniki. Our friends are proud of the fact that one of their indicator boards is in one of the Soviet space-communication centers.

* Words in slantlines are transliterated from Russian.

"This year," Gyorgy Sombor says, "we shall be sending such equipment for the sports halls of the Army Central Sports Club, for the Small Arena in Luzhniki, for the Rowing Canal in Krylatskoye, and in Bittsevskiy Park. A large group of Hungarian specialists will soon go to Moscow for its installation. In addition to 14 fixed indicator boards, we shall also provide three mobile ones. They will be used at the time of the bicyclist competitions, for archery, rifle and pistol shooting, as well as for the pentathlon. Most of our indicator boards should be ready in time for the 1979 Sports Festival of the Peoples of the USSR."

In Luzhniki there will be installed so-called "matrix" indicator boards, each of which is 250 square meters in size. On these tremendous screens, it will be possible to see in addition to the regular sports information, individual events of the competitions and even television programs. In distinction to the American, which until now have been of the 9th level of brightness, ours will be as high as the 16th. They will be operated with Hungarian Videoton computers.

Olympic orders are also being filled by another Hungarian enterprise--"Machinery Laboratory" in the city of Pecs. I spoke with Dezso Duba, the deputy director of this enterprise.

"For Olympiad-80, we are making the most modern studio tape-recording machines," he said. "We are very happy to have been entrusted with this job. Back at the Tekhnika--Olympiad Exhibit in Moscow, we promised to complete the order on schedule, and we are holding firmly to our word. Of course, it is pleasant to know that the collective of our enterprise was the first to make Olympiad deliveries from Hungary to Moscow--this was recently reported on Hungarian television. Several thousand of our tape-recording machines of different types will be used at the Olympiad. Incidentally, the television and radio studios of many Soviet cities are equipped with such tape-recording machines.

"We are stressing higher product quality and are employing the most modern testing procedures. Soviet specialists recently visited us--they rated favorably the first batch of machines for the Olympics."

We toured the well-illuminated shops of the plant. Many young people were to be seen everywhere. Flowers were on the girls' tables--it is more pleasant to work thus.

"Our workers," Dezso Duba explained, "have completed special secondary schools where they studied radio work. In the shop all the adjusters are engineers. Here meet Eva Barany --in 1976 she received the diploma of electrical engineer from L'vov Polytechnic Institute and is now successfully using her knowledge in practice."

"Our tape-recording machines," Yeva says, addressing us in good Russian, "are designed according to the block system. That is, their most important components may be replaced with separate units."

"We promised to have a repair service in Moscow for the time of the Olympiad, which will be supplied with such whole units rather than separate parts. But we think," Comrade Duba says, smiling, "that our specialists will be bored there without any work."

We have described here only some types of equipment which people's Hungary will be sending to the coming Olympic games. In addition, tens of Hungarian enterprises are making a great deal of other equipment. Thus, Budapest's /BEAG/ Plant will supply acoustic equipment for the Olympic teleradio complex in Ostankino, Budafoks --radio-relay lines for teleradio broadcasts both within the USSR and in foreign countries; Hiradasitechnika -- monitors for controlling the quality of television transmissions.

Such is the contribution of our Hungarian friends in preparations for Olympiad-80. Quite a contribution!

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CSO: 1823

BRIEFS

INTERNEFTEPRODUKT JOINT ORGANIZATION--In June 1978, representatives of the appropriate organs of Bulgaria, Hungary, Poland, USSR and Czechoslovakia signed an agreement in the city of Varna on the creation of an international operating company for cooperation in the field of small-tonnage petroleum products, additives and catalysts bearing the name Internefteprodukt. The main task of the company is to provide all-possible assistance to the fullest possible satisfaction of the requirements of participating countries in the indicated products. Provision is made for a joint working ("executive") organ--bureau, created for a member of the company and conducting his affairs. Such a member is the Bulgarian operating organization. The bureau's director is appointed on presentation by the Bulgarian side to the company's council, which is the directing organ of this joint organization. [Text] [Moscow EKONOMICHESKAYA GAZETA in Russian No 28, Jul 28 p 13] 7697

COMMISSION FOR GEOLOGY MEETING--In Bucharest, the 35th session of the CEMA Permanent Commission for Geology took place. At the session, there were examined in particular the results of fulfillment in 1977 of the work program on the problem "Creation of Highly Efficient Technical Equipment for Conducting Geological Exploratory Work at Hard Mineral Deposits for Hydrogeological and Geological Engineering Explorations" and also proposals on further directions in cooperation to 1990 and on increasing the effectiveness of joint work within the framework of an agreement on scientific-technical cooperation on this problem. There were also examined the results of the work of the International Geological Expedition of CEMA Member-Countries to Mongolia in 1977. The commission discussed the proposals on the subject matter and schedules of development of scientific-technical forecasts in the field of geology, of mutual interest to CEMA member-countries, to the year 2000 and approved the long-term plan for their development. [Text] [Moscow EKONOMICHESKAYA GAZETA in Russian No 28, Jul 28 p 13] 7697

USSR-POLAND AUTO DELIVERIES--The business ties of the All-Union Avtoeksport Association and the Polish Pol'-Mot Foreign-Trade Organization are developing successfully; the latter imported in the last two years alone more than 36,000 Soviet automobiles and trucks. This year, in accordance with the recently signed contracts, there are to be delivered to Poland from the USSR in particular 7,000 Lada and 4,000 Zaporozhets automobiles, more than 400 KrAzov machines and other brands of motor vehicles. In its turn, Pol'-Mot will deliver to the Soviet Union trucks, Nisa microbuses and Zhuk vans. [Text] [Moscow EKONOMICHESKAYA GAZETA in Russian No 37, Sep 78 p 20] 7697

SOVIET-JAPAN STEEL TRADE--Moscow 31 Aug KYODO--Four major Japanese steel makers reached agreement in principle with the Soviet Union Thursday on the price of 200,000 tons of large diameter steel pipes to be exported to that country in the October-December period. The agreement was reached by Nippon Steel Corp, Nippon Kokan K.K., Sumitomo Metal Industries and Kawasaki Steel Corp. Some quarters had voiced fears that the Soviet Union may resort to economic retaliation in connection with Japan's conclusion of a peace and friendship treaty with China. But the agreement reached Thursday indicated that the Soviet Union was refraining from taking of "retaliatory" measures in the trade sector. The Japanese steel makers had reached agreement with the Soviet Union last year on the export of a total of 700,000 tons of large diameter steel pipes through extension of a bank loan of dollar 230 million. Under the agreement, the pipes were to be exported in four shipments with the prices to be decided each time. Shipment of 500,000 tons were to be completed by the end of August. Negotiations on the price for the remaining 200,000 tons had been conducted since June. Talks had been meeting rough going because the Japanese side had demanded a price increase of some 20 percent and because of the appreciation of the yen's value. [Text] [Tokyo KYODO in English 0854 GMT 31 Aug 78]

CSO: 1812

ACCELERATING COMMUNICATIONS DEVELOPMENT

Moscow VESTNIK SVYAZI in Russian No 6, 1978, pp 2-3

/Article by deputy director of the Main Administration for City Telephone Communications of the USSR Ministry of Communications P. P. Dorozhko in the column "The Five-Year Plan--Third Year": "On Methods for Accelerating Development"/

/Text/ The acceleration of scientific and technical progress in all sectors of the country's national economy is one of the foremost problems of the Tenth Five-Year Plan. Proceeding from the resolution of the 25th CPSU Congress, allocations for scientific research and development, primarily for the development of new equipment and for the introduction of improved production engineering, are increasing from year to year making possible the more complete satisfaction of the interests of developing a socialist society and providing an appreciable economic impact.

In the current five-year plan the country's telephone installers are also devoting a large effort to accelerating scientific and technical progress in the subsectors of municipal telephone communications.

In the Accountability Report section of the 25th CPSU Congress devoted to the Party's economic strategy, comrade L. I. Brezhnev observed that, among other cardinal problems produced by life in a scientific and technical revolution, "We must allot greater resources for the acceleration of development in transportation, communications and materials procurement systems and in all that comes under the heading of infrastructure."

The Party gives serious and unceasing consideration to increasing the level of prosperity of workers. In "Basic Directions for the Development of the USSR National Economy in 1976-1980", the more complete satisfaction of the requirements of the urban population for telephone service was foreseen in particular.

For two years now, the resolution of the CPSU Central Committee "On Measures for Accelerating the Development of the Country's Telephone Communications" has been in force endorsing proposals developed by USSR Gosplan and the

USSR Ministry of Communications directed toward significantly improving service to the population, organizations and enterprises of the national economy by telephone communication facilities and favorable opportunities have been opened up for the further development of municipal communications facilities, for growth in the efficiency of capital investments and for increasing the rate of automatic telephone exchange construction.

The USSR Ministry of Communications will have to construct and put into operation 6 million ATS [automatic telephone exchange] numbers in the cities, regional centers and workers' settlements of which approximately 1.2 million of the numbers are in addition to the national economic five-year plan. At the same time the quality of service to the population and the national economy by telephone communications facilities must be improved.

What is the total for the two preceding years of the Tenth Five-Year Plan as regards the achievement of these measures?

For 1976 and 1977 the program on ATS construction and putting the exchanges into operation has been implemented by 104% for the country as a whole and by 101% for the RSFSR.

In 1977 the ministries of communication of the following republics coped with the plan for putting ATS's into operation most successfully: Latvia (175%), Moldavia (170%), Tadzhik (126%), Estonia (122%), Uzbekistan (121%) and Lithuania (120%).

And in the same period annual plans for putting ATS's into operation were not fulfilled by the ministries of communication of the Georgian (40%) and Turkmen (66%) union republics and also several PTUS's [settlement telephone communication centers] of the RSFSR (Irkutsk, Sverdlov, Kemerovo, Krasnoyarsk and Ryazan). The ATS's planned for 1977 were not put into service in Pyatigorsk (Stavropolsk PTUS) and Nizhniy Tagil (Sverdlovsk PTUS).

The delay in putting the automatic telephone exchange units under construction into service is explained in many cases by the fact that the enterprises of the Ministry of the Communications Equipment Industry and the Ministry of the Electrotechnical Industry often fail to provide equipment and telephone cable delivery at the contracted date. However, the facts are evident in the course of the work of individual PTUS's when the equipment is not used for long periods. Thus, equipment allocated in 1977 to Tomsk, Chelyabinsk, Tul'sk and Yaroslavsk PTUS's lies in the warehouses as idle capital because of unfinished construction on the automatic telephone exchange buildings. The same thing also happened in the Khabarovsk PTUS and, what is more, here the ATS equipment which represents a solid material value has been stored for a long period in warehouses which are unsuitable for use.

In order to accelerate putting automatic telephone exchanges to use in 1976, the Council of Ministers of the Autonomous Republics, the territorial executive committee, the regional executive committee and the city executive committee were granted the right to carry out construction on the ATS buildings

on standard projects at the expense of deducting 0.4% of the resources from the capital investments allotted for housing construction. And there, where the PTUS's are working in close working contact with the regional and city council departments, the construction of new buildings for city ATS's is being accomplished on schedule by the local construction organizations.

Unfortunately, such contacts are sometimes lacking both through the fault of the regional executive committees and the city executive committees and also of the PTUS's. Obviously, this is the very reason for the long delay in the construction of automatic telephone exchange buildings in Moscow, Ufim, Novosibirsk, Irkutsk, Krasnoyarsk and other city telephone services.

The construction of buildings is a very important job for regional communications centers (RUS) where ATS regional centers must be placed along with postal and telegraph services. However, these jobs are being carried out at a very slow pace in some PTUS's. Thus, capital investments for construction and assembly work on regional communication center buildings are being managed badly by Kursk (having achieved only 10.1% of the plan), Komi (10.9%), Vladimir (14%), Chuvash (25.4%), Kalmyk (34.8%) and Krasnoyarsk (26.4%) PTUS's.

The lag in RUS building construction in the regions listed is explained primarily by weak control on the part of the PTUS's and the city telephone services under their authority for the construction operation and the keeping of consistent schedules appropriate for the performance of the work being done.

Of chief importance for accelerating the development of city telephone communications is the correct choice of technical solutions adopted at the stage of planning the individual automatic telephone exchanges. Considering the acute deficiencies in municipal type ATS equipment, it is necessary to employ as widely as possible K-100/2000 type ATS's where this capacity is adequate for satisfaction of the requirements in telephones at the first stage. It is also advisable to substitute when necessary already designed K ATS equipment of the municipal type for K-100/2000 ATS's.

It is no less important to link up finished projects with housing construction. There are still cases where large-capacity main cable is run to those microdistricts of a city where construction on housing blocks has not yet begun as a result of which the cable remains inoperative for a long period (an obvious example of this being the construction of the new automatic telephone exchange in one of the microdistricts of Novosibirsk) while other already populated districts are experiencing the acute lack of telephone communication facilities.

In order to avoid this type of situation, it is necessary to make corrections to allow for changes in construction up to the very completion of work on projects approved earlier and to make provisions for telephone service in those districts which are already populated, in this way not exceeding the limits of the overall estimate and the material resources which have been allocated.

It is necessary to make provisions for exploiting automatic telephone exchange capabilities primarily where this may be feasible with minimum expenditures by the expansion and maximum use of existing buildings, trying in this way to eliminate the disproportion between the exchange and line volumes. One must not forget that additional equipment for coordinated ATS's which is ordered by the ministries of communication of the union republics and the PTUS's and is necessary for center development comes in a general numerical volume supplied by industry. An unwarrented increase in orders for additional equipment lowers the volume of supplies for new ATS's which there are plans to construct.

Telephone installation for institutions and enterprises should be carried out mainly through the institutional and industrial exchanges. When delivering technical equipment for telephone installation to some kind of enterprise, it is necessary to proceed from the fact that equipment for city ATS's was not intended as a substitute for departmental ATS's and laying cable for direct communication to an institution or enterprise should be allowed only to the minimum capacity and extent.

It is only recommended that new main regions be opened up to telephone communication when there is the possibility in the first stage of the operational period of including no less than two or three automatic telephone exchanges in them. These measures will permit better use of K ATS equipment of the municipal type.

As in the preceding years of the Tenth Five-Year Plan, very serious consideration must be given to investigating all possible means for reducing the costs of construction work, accelerating its rate and completing newly operational ATS capabilities more rapidly.

The adoption of sealing devices of the IKM-30 type in these lines makes it possible to lower the construction cost of the most expensive part of municipal and telephone networks--the interexchange lines.

Widespread use of cables with decreased conducting core diameters (0.32 and 0.4mm) in a telephone network permits the reduction of capital expenditures and savings on nonferrous metals. By the end of the Tenth Five-Year Plan, about 50% of the municipal telephone distributor cables will be issued with cores 0.32 and 0.4 mm in diameter.

Designers and construction and assembly organizations in communications should seek to prevent the cable span for 1000 numbers in connecting lines from exceeding 50 km on the average. Provisions should also be made for the use of overhead pole lines for telephone service to subscribers living on the fringes of cities, where for some time past overhead lines have been being replaced by cables without particular necessity.

Another no less demanding problem for workers of the municipal telephone network is increasing the performance of the equipment installed. For this purpose rigorous control should be instituted everywhere over the quality of industrial equipment manufactured for automatic telephone exchanges, which now is done in telephone plants in cooperation with representatives of the customer.

Unfortunately, a situation is being encountered where complaints about defective equipment are being drawn up by customers at the wrong time and not in line with the prevailing instructions, which complicates the process of presenting the grievances to the suppliers. For the purpose of striving for high performance in the equipment and cable supplied for ATS construction, complaints about defective products should be drawn up and filed at the proper time and should not let the warranty period instituted by the plants and manufacturers go past especially on deliveries obtained through importing.

Along with the large amount of work on automatic telephone exchange construction in 1976-1977, the improvement of technical operation of city telephone service installations is being successfully continued. Due to the wholesale adoption of APA [automatic testing equipment] and APTA [automatic telephone testing equipment] equipment for automatic testing of exchange equipment and automatic power plants in many automatic telephone exchanges, the operating costs have been reduced considerably and the labor productivity of workers has increased. Central repair bureaus are being organized everywhere which allow smaller staffs to serve a larger number of subscribers, reduce the time spent on eliminating defects, increase the quality of exchange equipment testing and cut down on hand labor.

Replacing manually operated telephone exchanges with automatic has made it possible to increase the level of automation in municipal telephone networks from 93.7% in 1976 to 97% in 1977.

The implementation of measures for more complete use of the capabilities of municipal telephone networks has made it possible to increase the coefficient of equipped capacity which has been installed from 86% in 1976 to 89.5% in 1977.

Considering the fact that scientific and technical progress in the communications field as in other sectors of the country's national economy is growing at an accelerated pace, technical provision for communications enterprises is growing continuously and becoming complicated; the requirements of the population, institutions and economic organizations for communications facilities, including telephone service, are increasing. Before the USSR Ministry of Communication and the ministries of communication of the union republics and PTUS's stands the problem, more critical than those of the preceding years of the Tenth Five-Year Plan, of building up the capabilities of contract organizations, recruiting highly qualified staffs for them, equipping them with the newest technology and transportation and providing planning documents and materials at the proper time. No less critical is the problem of training highly qualified specialists and operators able to manage the complicated new equipment skillfully.

The successful resolution of all of these problems will make possible extensive socialist competition in fulfilling and exceeding--by the day of the first anniverary of the adoption of the new USSR Constitution--contracts undertaken by telephone installers as well as by all the labor collectives of our country in response to the Letter from the CPSU Central Committee, the USSR Council of Ministers, the VTsSPS [All-Union Lenin Young Communist League] Central Committee "On the Development of Socialist Competition for the Fulfillment and Overfulfillment of the 1978 Plan and Efforts in the Campaign for Increasing the Efficiency of Production and Work Performance."

8945
CSO: 1823

COMMUNICATIONS

PREPARATIONS FOR OLYMPICS OUTLINED

Moscow MOSKOVSKAYA PRAVDA in Russian 19 Jul 78 p 3

[Interview with P. V. Lupashko, chief, engineer of the Lenin telephone center, by A. Kuzmak: "Moscow is Calling"]

[Text] Construction for the Olympics is in full swing. New gymnasiums, stadiums and swimming pools are rising and being roofed, and they are coming to the finishing work on the construction of a large number of back-up units for Olympics-80, such as dining rooms, hotels and motels. Builders and decorators, cooks and interpreters, architects and chauffeurs--representatives from many professions are preparing to welcome the guests. Among those who will maintain the rhythm of the Olympics "pulse"--resilient, efficient and constant--are the Moscow telephone installers.

[Question] How are they being prepared to meet with Olympics-80? Our correspondent A. Kuzmak turned to chief engineer of the Lenin telephone center Pyotr Vasil'yevich Lupashko with these questions.

[Answer] There are very important Olympic units located in the large territory served by the Lenin telephone center. Foremost among them is the Olympic Village. It is well-known that the houses in it are being constructed according to the standard designs adopted for residential building in several microrayons of the city. In our plan each apartment in these houses will have its own telephone. Including administrative and public buildings constructed in the village, the overall number of individual telephone numbers here will reach 6,500. In order to provide such a high volume of telephone service, a special automatic telephone exchange will be built.

[Question] All of the world's largest newspapers will cover the Moscow Olympics. What plans have been made to provide the thousands of teams of journalists with telephone service?

[Answer] Setting up operating telephone "connections" for press representatives is the subject of special consideration. Almost all of the foreign correspondents assigned to Moscow in 1980 will be our telephone subscribers.

Their accommodations in the Moscow State University imeni Lomonosov area is included in the zone served by the Lenin telephone center. The main feature of the organization of telephone service for the press is its scale. By 1980 we must put 3,000 devices into operation for individual use at the rate of one to each correspondent. In order to increase the quality of telephone service in the Moscow State University territory, there are plans to build a special automatic telephone exchange.

[Question] Are the efforts of telephone installers alone necessary for putting the whole system into service successfully?

[Answer] It stands to reason that the role of the planners and builders is of primary importance. As experience shows, they are coping basically with their own problems. For example, the construction of automatic telephone exchanges for the Olympic Village and in the 45th microrayon, Troparev, is proceeding according to plan. But, in our view, the development of the design for the ATS-132 [automatic telephone exchange] building in the Moscow State University area is being delayed without good reason. The hitch with this is less understandable than with the standard design since developing it requires only a "tie-in" to the building's construction site.

[Question] The majority of back-up units for the Olympic games, as is generally known, will be constructed with allowance made for their subsequent use. What kind of prospects are there for the development of the telephone network in our rayon after the end of the Olympics?

[Answer] By 1980 there will be 30,000 new numbers in the Lenin telephone center after all of the automatic telephone exchanges being built are put into service. So, taking into account the equipment already installed, the whole area served by the center including houses will have 100 percent of the telephones installed by the end of 1980.

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COMMUNICATIONS

BRIEFS

AZERBAIJAN TV RELAY--Reliable television transmission has been established between Shusha and Kubatly following completion of construction of seven relay installations along an almost 400-kilometer route. The new relay stations will insure reception in the remotest villages of the Malyy Kavkas mountains. [Text] [Baku Domestic Service in Russian 1500 GMT 5 Sep 78 LD]

CSO: 1823

MANPOWER UTILIZATION AT ENTERPRISES

Moscow EKONOMIKA I MATEMATICHESKIYE METODY in Russian No 4, 1978 pp 720-730

/Article by A. I. Gol'denberg (Moscow): "Some Urgent Problems of the Utilization of Manpower at Enterprises"*/

/Text/ Production regularity, the increase of the skills of workers and the improvement of the economic stimulation of labor, the main elements of which are the wage system, norm setting and wages, which include various systems of the payment of bonuses, are important factors of the increase of labor productivity and the improvement of product quality. This article gives proposals on the improvement of production and organizational practice in respect to the indicated factors in their overall examination.

The Organization of Production Regularity

One of the causes of the unsatisfactory quality of some types of products is the violation of technological discipline as a result of organizational mix-ups which are usually accompanied by production arrhythmia, which, as a rule, involves overtime, the overworking of workers, their increased sick rate /1, p 101/, production waste, the improper operation of equipment and the inefficient use of raw materials and materials. The shortage of labor resources at an enterprise can explain the overtime which occurs uniformly during the entire month, but not the rush work during its last days.

The losses of working time, which constitute at a number of enterprises 15-20 percent /2, p 114/, give rise to the need for the artificial extension of its boundaries. This is achieved usually in the form of voluntary overtime, and the optimum length of the work week (when the greatest total output per worker is achieved) is often exceeded. The consuming enterprise, as a rule, not only cannot use the additional (with respect to the 10-day plan) portion of the products which are produced in the third 10-day period of the month during overtime in production during the next 10-day period, but does not have an opportunity to even receive it in connection with the limited throughput of transportation. The decrease of product quality as

*By way of raising the issue.

a result of rush work is sometimes of a concealed nature, since the OTK /division of technical control/ does not have time to carefully check this quality, while the consumer, who is concerned about the shortage of raw materials, reconciles himself with its being substandard.

Rush work is undesirable both from the social and from the economic point of view. Usually its elimination is connected with the improvement of the entire national economic system of production management and, in particular, with the organization of regular material and technical supply (since adjustments of the plan or the delay of technical specifications can threaten the fulfillment of the monthly or quarterly program, but usually are not the cause of arrhythmia during the month). Let us arbitrarily divide the intraplant causes of rush work into objective causes, which are connected with the technical aspect of production, and subjective causes, which pertain to the personnel of the enterprise. The latter, in turn, can be reduced to ability and interest of all the personnel in rhythmical work. On the one hand, experience shows that the interest of pieceworkers in rhythmical work is ensured by irrecoverable losses in wages, which they incur, if during the first and second 10-day periods through their own fault they do not work at full capacity. On the other hand, the special stimulation of rhythmical work of pieceworkers in itself cannot eliminte rush work, if the other necessary conditions are not created for this. For example, the unadvanced wages of workers directly interest them, but not the administrative personnel, on whom regularity presently depends to a great extent.

It remains to examine the latter cause--the insufficient labor activeness of the administration and the workers of auxiliary services, who are paid on a time basis. It can be explained by the fact that under the conditions of the violation by related enterprises of their production obligations and with the existing shortcomings in the organization of production at the enterprise itself the administration prefers to concentrate its efforts at the end of the month, when all the physical elements of production are available, and tries much less actively to offset the disorganizing factors of production during the first 10-day periods of the month.

It is necessary to achieve an increase of the activeness of the administration and the workers of the auxiliary shops in the organization of production regularity by means of special economic stimulation, which when necessary is carried out without the commitment of additional monetary assets. In the last section of the article there is examined the so called "coefficient" principle of the formation of the bonus, in case of which it is possible to increase considerably the interest of administrative personnel in the organization of rhythmical work without detriment to the other indicators which characterize the efficiency of the activity of the enterprise. This should be combined with moral stimulation and, if necessary, also with measures of administrative pressure.

Let us note that in order to organize production regularity under the conditions of a delay of the deliveries of raw materials it is necessary to

assure legally and financially the coordination of the schedules of: a) the production of products at the given enterprise, b) its transportation to the consuming enterprises and c) the productive consumption of the raw material products at these enterprises. As a result the opportunity will arise to realize certain reserves of the rhythmization of production without detriment to related enterprises. It is necessary to take into account the fact that, for example, with a 10-day period of the transportation of products from the place of production to the consuming enterprises, in order to ensure the rhythmic operation of the latter it is sufficient to deliver to them during the first 10-day period 33 percent, and not 50 percent of the monthly output of products which are produced usually during the third 10-day period of the preceding month.

The Increase of Skills

The skills of the workers are another important factor of the growth of labor productivity and the increase of product quality. In economics literature it is recommended specifically to create the conditions for increasing the skills of workers when the average category of the jobs is higher than the average category of the workers /3, p 290/. At the same time at enterprises there are limits to the increase of the categories of workers. The advocates of these limitations are overlooking the "effect of skills," which consists in the fact that a worker performs a job of a lower category approximately 15 percent more productively than a job of his own category /3, p 94/. A set of cases cited in a number of studies attest to the existence and extent of the effect of skills. It is, first of all, the higher level of the average percentage of fulfillment of the norm of output for workers of higher categories /4, pp 113-114; 5, p 109/, second, the greater lag of the average category of jobs behind the category of workers of higher categories /6, p 86/ and, third, the inverse dependence of the percentage of fulfillment of the norm of output on the rate of pay for a norm-hour, which we discovered for 19 occupational groups of two enterprises and which show that the rigidity of the norms for jobs of senior categories is less than for jobs of junior categories. By comparing these cases, the indicated increase of the percentage of fulfillment of the norms can be explained only by the fact that the workers of each subsequent category, in performing an increasing proportion of the jobs of lesser categories, achieve a higher output than less skilled workers. Moreover, it is well known that highly skilled workers perform a job with better quality and operate equipment more properly. Hence follows the conclusion than it is economically advantageous both for the enterprise and for the national economy to promote an increase of the skills of workers regardless of the correlation of the category of jobs and the category of workers.

There are often raised against this suggestion objections which reduce to the fact that the wage fund may be overloaded by supplementary payments for a job which does not conform to the skill of the worker and that the wage of pieceworkers of a high category will have to be artificially maintained at a higher level. In reality it is possible not to fear the supplementary

payments for the underutilization of skills, since a considerable portion of the jobs performed by pieceworkers are subject to such supplementary payment and, in spite of this, supplementary payments constituted less than 0.3 percent of the entire wage fund of workers /7, p 146/. Consequently, the bulk of the workers would lose almost nothing from the abolition of this type of supplementary payments. Moreover, many pieceworkers would not be able to rapidly improve their skills in the process of production. As a result the turnover of the young regular working staff would decrease, and the administration would obtain a real opportunity to actively promote the increase of skills. Moreover, the pieceworker, in performing a job of a lesser category, in fact merits a wage corresponding to his skills, and therefore it will not be necessary to artificially bring up his wage to a specific level.

For workers paid on the basis of a time rate, who have a higher category, it is possible to set a higher norm of service. Then the decrease of their number at the object being serviced can provide the material basis for the increase of their grade category and wage. Here it is even possible to increase the demands on the skills of workers being certified and, of course, it is necessary to maintain strict control over the validity of the conferment of the next category. It is not a matter of an extreme and artificial increase of the expenditures on the increase of the skills of workers, which is not caused by production needs, but of seeing to it that the administration not only did not check the increase of categories, but, on the contrary, created a situation of utmost conduciveness to the increase of skills, that is, encouraged the highest skilled workers to share production know-how not only with novices who have come to the plant, and afforded workers of any category the opportunity to acquire during production the necessary skills for jobs of a higher category and, when feasible, for jobs of allied professions.

It often happens that skilled workers move to another enterprise, where there is a shortage of highly skilled personnel. From the state point of view this phenomenon is, as a rule, favorable. But it is necessary to take into account that with the implementation of our proposal no fundamentally new situation will arise, which can cause an increase of the turnover of personnel. The use of highly skilled workers for a less skilled job is the usual case. According to the data of a mass survey of 22,000 workers of machine building it turned out (for a close value of the average category of the jobs and workers) that the average category of the jobs performed by workers of the fifth and sixth categories is 4.2 and 4.4 respectively /6, p 86/. At the same time it is well known that the motive "due to the inability to completely utilize one's skills" is virtually absent /2, pp 129, 160/. It happens that some workers initially go to work at the enterprise where there are more opportunities to increase one's skills, and then transfer to an enterprise where the working conditions are better or the wages are higher. However, our proposal presumes the creation of favorable conditions for improving skills simultaneously at all enterprises and control over this on the part of local organs. Then skills will be

improved more rapidly where the need for highly skilled personnel is higher, and the situation conducive to an increase of the turnover will not be able to arise.

The improvement of skills does not always lead to an increase of output, but in all cases it is conducive to an increase of the standards of production, the creative initiative of workers and in the end increases the efficiency of their labor and provides the conditions for the rapid mastery of new equipment, new types of products and advanced labor methods. This idea has been covered well in economics literature, and here is the opinion of the well-known artist G. A. Kulagin: "...here we are again approaching the main objective cause which in many cases leads to the slowing of the process of mastering new equipment. This cause, in my opinion, is above all the shortage of a skilled regular labor force" /8, p 99/.

The Improvement of Norm Setting

The organization of production regularity and the increase of the skills of workers will also promote the elimination of the shortage of working personnel, which in a number of instances is of an artificial nature which is connected with shortcomings in the organization of production and wages. The proper use of manpower is closely connected with the quality of the norm setting of labor, and it, in turn, depends on the status of the rate system. Therefore it is appropriate to mention the two main principles of the organization of the rate system, which determine the proportion of the rate in the wage and the intercategorial difference of wage rates. At the present stage, with the already achieved level of well-being of the workers, the economic stimulation of labor activity is the primary task of wages. Therefore, the optimum proportion of extra piece-rate earnings in the wage should be determined not by how this proportion "is coordinated with the tasks of the normal reproduction of manpower" in case of possible changes of the production situation /9, p 71/, but by the average range of the fluctuations of the effectiveness of labor subject to the individual efforts of the workers (since under the conditions of mature socialism the function of the reproduction of manpower is entrusted not to the rate system as a whole, but mainly to the category of the minimum wage).

According to available data the average deviation from the average output for a sufficiently representative occupational and skills group is equal to approximately 15 percent /4, p 113/. Assuming that each percentage of overfulfillment of the norm of output is paid for by twice as much and more /5, pp 109, 133/, we will find that the average proportion of the extra piece-rate earnings in the wage should be about 30 percent. If we take into account, moreover, the inevitable difference of the wages of workers of individual enterprises, the proportion of the rate in the wage should be substantially less. At the same time it is impossible to decrease the intercategorial differentiation of wage rates to a greater extent than is specified by the "effect of skills." Otherwise it will be more profitable for the worker to perform a job of a lesser category than his own. The

natural criterion for the adjustment of the intercategorial coefficients of the wage rates is thereby revealed.

But let us turn to questions of norm setting as such. The norms of output, besides an economic function, also plan the role of a legal function. They not only give grounds for the differentiation of the piece wage and bonus of workers subject to the achieved results, but also specify the minimum below which the output of a worker of a given occupation and skill should not fall (with the regular nonfulfillment of the norm the administration can raise the question of the nonconformity of the skills of the worker to the job being performed). With understated norms a portion of the workers might work with an intensity lower than the socially normal level. So that the management of the enterprise would have the legal right to demand administratively from them work with the socially normal intensity, it is necessary to introduce more intensive norms of output. At the same time they should not be excessively rigid. The proportion of the workers not fulfilling the norm, in our opinion, should not exceed 5-7 percent (which corresponds approximately to the proportion of certified workers with a professional length of service of less than one year), since otherwise the legal regulation of labor relations becomes more difficult.

The introduction of technically or scientifically substantiated norms of output is regarded in economics literature as an important condition of the improvement of the organization of production and the increase of the quality of the norm setting of labor. But considerable losses of working time for production reasons, which fluctuate from day to day, serve as one of the obstacles to this introduction. If when establishing the norms these losses are not taken into account, about half of the workers will not be able to fulfill these norms in the usual time in the real production situation. If we take these losses on the average into account, the norms will not be technically substantiated in the full sense /10, p 14; 11, p 44/.

The proportion of the technically substantiated norms of output increases from year to year, and at the same time during any interval of time, when the wage rates remain constant, the average percentage of fulfillment of the norms also increases. This affords some authors a pretext to speak about the low quality of technically substantiated norms /5, p 130/. The premature introduction of such norms, which are fulfilled at times by means of negligible voluntary overtime, creates at superior organizations the deceptive impression of the satisfactory organization of production, and in the management of the enterprise--of the complete utilization of internal reserves. Therefore, for all the importance of technically substantiated norms, in themselves they are not the main condition of the improvement of the organization of production, while it is expedient to carry out their introduction only on the basis of such improvement.

The effective functioning of the system of the norm setting of labor is closely connected with the increase of the skills of the workers. Highly skilled workers realize more boldly the latent potentials of production

equipment and deal considerably more often with rationalization and the development of inventions. This is also important for the increase of the effectiveness and content of labor, and from the point of view of improving the procedure of revising the norms of output. At present a considerable share of the revisions are actually made not on the basis of implemented organizational and technical measures. In a number of cases this creates alertness among workers and does not stimulate them to discover production reserves /6, p 107/.

Meanwhile, there is a real opportunity to achieve a revision of the norms of output in the current volume only on the basis of organizational and technical measures. For this it is necessary to properly stimulate, record and introduce the achievements of innovators and rationalizers. It is necessary to qualify more often as rationalization the proposals of workers on the improvement of the means of labor. The reward for such proposals should be such that it would be more advantageous for the worker to immediately report his findings than to hold them in reseve until the new revision of the norms of output. It is possible to invite him for additional reward to teach his comrades to use the results of the rationalization proposal. Here, of course, the routine regulation of the means and methods of labor is inappropriate. Many means are individual and, being imposed on a worker with a different type of psychomotor reactions, can result in a decrease of output. There is also another difficulty, which is connected with the fact that the effect of each new means separately may be negligible or yield poorly to calculation. But even in this case it is possible to reveal a set of these means, to evaluate their total effect, to establish and collectively encourage the group of their authors.

The existing procedure of paying for rationalization proposals of workers mainly reimburses its author for the loss in wages, which he might have incurred from the introduction of a new norm of output. In our opinion, this compensation should be in proportion to the impact which his proposal yields. The considerable reserves of independent rationalization are attested by the fact that often the rationalization activity of individual workers, which has as its result an overall increase of labor productivity, increases immediately after the revision of the norms. Consequently, if all the parties of rationalization were stimulated to a sufficient degree, the impact from rationalization could be obtained before the revision of the norms, while the revision itself could be carried out on its basis.

In practice the improvement of the production skills of workers often serves as the grounds for revision of the norms of output /12, pp 134-140/.* But

*It is necessary to distinguish the independent increase of labor skills and occupational workmanship and the increase of the same workmanship owing to organized training at schools of advanced know-how, when the mastery of new means of labor is provided and controlled on an individual basis. Such training is an organizational and technical measure and gives legal grounds for the appropriate revision of the norms of output.

it should be taken into account that norm setters, a considerable portion of whom do not have any special training, can make mistakes, having taken an increase of the intensity of labor and an increase of the duration of voluntary overtime as an increase of the occupational workmanship of workers. The unfounded revision of norms can lead to an increase of the number of products being produced to the detriment of its quality /13/, to the discovery of production reserves or, on the contrary, to a greater intensity of labor, which is fraught with an increase of the sick rate and turnover of the regular labor force /1, pp 99-103/. All this does not pertain to the revision of temporary norms, when the extents and dates of the revision are stipulated beforehand, while the very use of these norms provides workers with normal material conditions during the period of the placement of a new type of product into production.

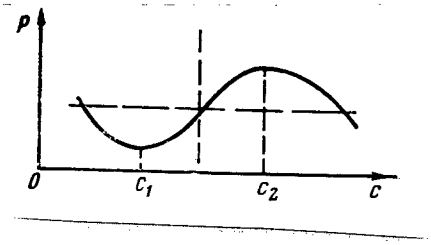
The revisions of the norms of output, which are implemented on the basis of an independent increase of labor productivity, seem arbitrary, since the administrative workers do not detect the changes in the means of labor, which provided the increase of output and cannot technically substantiate such revisions. In order to expedite the introduction of the achievements of production innovators and to prevent the negative consequences of the unsubstantiated revision of the norms of output it is necessary to increase substantially the skills and interest of norm setters and foremen, so that they would achieve the formalization of rationalization and the provision of incentives to its authors even when they do not fully realize the content and significance of their innovations. Process cards indicate to the workers only the main elements of their labor, therefore it is necessary to stimulate the technological creativity of workers and to treat its results attentively. In itself this is a mighty moral stimulus to work, which is conducive to the education of the creative personality.

Some experienced workers consider as proper the utilization of the considerable differences of the rigidity of the norms of output for individual types of jobs of one occupation as a tool of the regulation of the amount of the wage of pieceworkers within the allocated fund. But in this case there can be a violation of the principle of equal pay for equal work, which undermines the interest in increasing labor productivity and causes an increase of the turnover. The establishment when possible of equally intensive norms for all types of jobs with the more frequent revision of these norms is a more effective method of regulating labor relations of this type. It is necessary to recognize as unsatisfactory such a situation when the obvious differences of the intensity of the norms of output of the types of jobs frequently performed are eliminated much later than when the pieceworkers began to clearly distinguish among these jobs the "profitable" and "unprofitable" ones.

Equally intensive norms are a necessary prerequisite of the comparision of the labor achievements of individual workers /10, p 51/ and, consequently, of the observance of one of the main conditions of the proper organization of social competition. The desire to achieve recognition of the social significance of one's own labor and one's own occupational workmanship is a mighty internal stimulus of competition, while comradely relations between

workers and the creative elements in the content of labor, in turn, are conducive to its development. However, the lack in a number of cases of a real opportunity to repeat the best achievements at each work place, as well as of an opportunity to compare the results of labor activity hinder the realization of these stimuli. The fear of an unfounded revision of the norms of output and the conditions of the payment of bonuses is at times the main subjective obstacle. The rigidity of the norms of output should be equalized, while maintaining unchanged the average weighted evaluations for the individual types of jobs of one occupation. No additional legal grounds are needed for such an equalization, but it is more convenient to time it to coincide with the revision of the norms of output on the basis of other organizational and technical measures.

In order to approach the question of the economic criteria of the revision of the norms of output, let us examine some laws of the economic stimulation of labor. We will call the amount of wages which falls to a unit of labor efforts the unit remuneration of labor. With the performance of a job corresponding to the actual skills of the worker, by the unit remuneration there can be understood the complete payment for the amount of work, which is estimated in one norm-hour. If we plot along the horizontal axis the amount of the unit remuneration c, and along the vertical axis the output corresponding to it p, the indicated function will have the form of a segment of a sine curve, which we will call "the curve of stimulation" (see the figure).



Some statistical data attest to such a form of the function /14, pp 191-193/, it is also confirmed by more extensive experience of the economic stimulation of labor. Indeed, on the one hand, all piece-rate plus bonus wage systems proceed from the fact that with an increase of the unit remuneration the labor activity increases, while on the other, by increasing the norms of output on the basis of "the increase of the skills and occupational workmanship of the workers" /10, p 55/, the norm setters reckon not without reason that the output of pieceworkers not only will not decrease, but rather will even increase. In other words, within a specific range of the unit remuneration (c_1, c_2) in response to its increase the worker increases the output (a direct dependence of the output on the extent of this remuneration occurs). But with a considerable increase of the unit remuneration there comes a moment (more correctly c_2) when the worker prefers a decrease of the intensity of labor to a further increase of wages. The stability of the wage d is ensured here by an increase of the unit remuneration c, which caused the decrease of the output p (since $d = cp$). On the other

hand, a considerable decrease of the unit remuneration (less than c_1) compels the workers to a certain increase of the output for the sake of assurance of the minimum acceptable amount of wages, but at the same time causes an undesirable increase of the turnover of personnel.

By having a graph of some segment of the curve of stimulation, which is constructed on the basis of the materials of the current accounting of the labor and wages of a given occupational group, it is possible to implement the proper policy of the economic stimulation of labor. For example, if in practice there is a direct dependence of labor activity on the amount of the unit remuneration for labor, a reduction of the average amount of this remuneration can cause a decrease of the output, which considerably exceeds the economy of the wage fund. And on the other hand, a decrease of the intensity of labor with an increase of the unit remuneration (given a normal level of turnover of the personnel via quitting) indicates the possibility of an increase on the average of the norms of output by means of less rigid demands. However, in practice they usually measure and analyze the output, but not the intensity of labor, and the obtaining of the correct conclusions is complicated by the fact that even with a constant technical level of production these values can change in different ways and even in opposite directions.

There exists the opinion /10, p 53/ that the revision of the norms of output becomes timely when the labor productivity of all groups of workers, which differ according to the average percentage of fulfillment, has increased to approximately the same degree. Indeed, such a condition is necessary for a revision, but is not alone sufficient, since the output can also increase as a result of an increase of the intensity of labor. If the output increases not by means of a increase of the intensity of labor, but by means of an increase of occupational workmanship, in respect to stimulation this increase is equal to an increase of the remuneration of each unit of labor effort. Moreover, production ability can increase so rapidly that the increase of output is accompanied by an increase of the intensity of labor. Here an inverse dependence between the change of the unit remuneration and the intensity is in fact realized. Such circumstances are favorable for the increase of the norms of output by an amount which ensures the further overall increase of the productivity and the restoration of a direct dependence between the increase of the unit remuneration and the labor activity. However, all this cannot be achieved without a sufficiently accurate measurement of the relative changes of the intensity of labor.

Without losing sight of the general methodological difficulties of such a measurement, it is possible to propose three means of indirectly evaluating the changes of the intensity according to: 1) the number of elementary labor operations performed in a unit of time; 2) the intrashift fluctuations of the hourly output; 3) the change of the total sick rate of the group of workers in question in comparison with a control group which works under analogous production conditions. It is necessary to use these means in combination with reciprocal checking of the correctness of the results of the measurement.

Thus, besides the equalization of the degree of rigidity of the norms of output, during revisions it is necessary to be guided by the economic criterion described here, but it is necessary to try to carry out the revision itself only on the basis of effective organizational and technical measures.

Some Questions of the Payment of Bonuses

In practice, given a high average percentage of fulfillment of the norms, the payment of bonuses for the overfulfillment of the norm of output within the range of 30-40 percent of the piece-rate wage often had the result that nearly all the pieceworkers of the given subdivision received such a proportion of the bonus, and it was turned into a mechanical wage increase. Here it turned out that precisely the highest levels of output are relatively poorly awarded bonuses, that is, greater stimulation of the best labor achievements is lacking.* At a number of enterprises this problem was solved using the payment of bonuses for the increase of the output in comparison with the preceding period or the payment of bonuses for the fulfillment of the standardized assignment. However, in this case the principles of proper stimulation are sometimes violated. For example, at the Taganrog Krasnyy kotel'shchik Plant, with a fulfillment of the norm of output by 143 percent, the pieceworker could be paid only the wage rate, while with a fulfillment by 144 percent and more with satisfactory product quality he was paid, moreover, a bonus in the amount of 40 percent of the wage rate /11, p 52/. For the sake of bringing the output of the lagging workers up to the average level here they refuse either the proportionate increase of the wage with an increase of the output (if the worker receives the rate both for 100 percent and for 143 percent of the output) or the adherence to the main principle of the rate system: "a rate of the norm of labor" (if the worker received less for 100 percent than for 143 percent). The use of this type of bonus payment systems, in our opinion, is not desirable, it attests to the bad state of the norm setting of labor at the given enterprise. The principle of equal pay for equal labor is also being violated when the payment of the bonus is made (as at the Moscow Dinamo Plant) for each percent of increase of the output in comparison with the personal base output /5, p 168/. In this connection let us note that the existence of actual limitations of the amount of the wage of pieceworkers at some enterprises undermines their interest in the increase of labor productivity. The introduction of more rigid norms of output and the abolition of the mentioned limitations are more expedient in such a situation.

In practice two principles of the crediting of the bonus are singled out according to formal attributes. The former principle can be called the /summary/ /in italics/ principle, and the latter, the /coefficient/ /in italics/ principle. In the summary principle the bonus is formed from the

*Many authors substantiate by this circumstance the need to increase the norms of output, but do not note here the requirement of their feasibility for the majority of workers in the usual time and under ordinary production conditions.

rewards for individual elements and results of the labor processes (for example, for the overfulfillment of the norms of output, for good product quality, for the economy of raw materials and so on). In the coefficient principle the bonus is formed by means of one-time multiplication of the basic wage by a number of specific coefficients which reflect the achievements of the worker for individual elements, that is, for the achievement for an individual element there is established not a separate bonus, but a special coefficient of the increase of the basic wage. Here the very size of the bonus is calculated as the difference of the indicated product and the basic wage.

With a large number of indicators of the payment of bonuses the individual bonus for each indicator is negligible with respect to the entire amount of the bonus, therefore with the summary principle of the payment of bonuses the worker has an opportunity to sacrifice the bonus for some indicator for the sake of increasing the bonus for other, relatively easily achieved results. For example, if the summary bonus is about 30 percent of the basic wage and is formed from the bonuses for 5-7 individual indicators (which include production regularity), the worker might not strive to ensure regularity (since this assurance is connected with relatively greater additional inputs of his labor) and retain here the right to receive 85-90 percent of the entire bonus.

With the coefficient principle of the payment of bonuses, on the other hand, an unsatisfactorily low level of any of the indicators of the payment of bonuses leads to a considerable decrease of the total bonus, and at the same time there is an opportunity to stimulate a continuous increase of the achievements of the worker for a wide range of indicators. The proper ratio of the increase of the coefficients can ensure an equally great interest of the worker both in increasing the number of products and in improving their quality. It is necessary for it to be more profitable for the worker to produce high quality items than to attempt to offset the loss of the bonus for quality by an increase of output, and at the same time the extreme fear of being deprived of the bonus for quality should not prevent an increase of output. Let us note that the introduction of a time-rate wage system without strict product quality control does not automatically guarantee and increase of its quality and, as a rule, leads to a decrease of its amount.

In practice both principles of the payment of bonuses are often used together, for example, when the bonus is credited separately for each of the indicators of the payment of bonuses, but with observance of a specific level. In this case the characteristic indicator k of the fulfillment of the condition of the payment of bonuses: for fulfillment of the condition $k = 1$, for nonfulfillment $k = 0$, takes the role of the coefficient. The coefficient principle is also used in pure form, for example, when crediting the bonus for the early fulfillment of the job assignment in construction, when the amount of the bonus for the time saved is multiplied by a specific coefficient depending on the point rating of the quality of the

work. The coefficient principle of the payment of bonuses, apparently, is more effective, but it is more difficult to understand, therefore it should be introduced first of all for engineering and technical personnel and employees.

The Main Directions of USSR National Economic Development for 1976-1980 indicate the paramount importance of the improvement of the conditions and the increase of the interest of labor. Therefore the centralized management of the process of eliminating rush work, the improvement of the organization of production, the increase of skills and the quality of the norm setting of labor is at present very urgent from the point of view not only of the improvement of production, but also the further increase of the well-being and social development of the workers.

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BAM BUILDERS REPORT PROGRESS ON BROAD FRONT

Moscow PRAVDA in Russian 3 Jul 78 p 2

[Article by Ermolaev, V., Kaz'min, Yu. and Starukhin, A., Special Correspondents of Pravda: "Four Years Later"]

[Text] *Now, 4 years later, 4 years after the first teams landed in the Taiga, it is useful to recall the task which the party and government set before the builders of the Baikal-Amur Main railroad line* [BAM]. Let us note *the most important aspect: construct a railroad 3,145 kilometers long from the city of Ust'-Kut (Vienna Station) to the city of Komsomol'sk-na-Amurye, passing through Nizhneangarsk, Chara, Tynda and Urgal; betwen 1974 and 1979, lay a single-track, 400 kilometer railroad from south to north - from Bam Station through Tynda to Berkakit.*

We all remember those days, when the Soviet people enthusiastically began working on the grandiose project. Thousands of young men and women, called by their heart and their motherland, came here from all corners of the nation. Together with experienced transport construction workers, they have spent those years walking through the virgin Taiga, punching through mountains, growing up, gaining the toughness and strength of Siberians, along with the skills of their new professions. They were inspired by a high patriotic goal: a second track to the ocean would open truly colossal possibilities for economic development of the huge natural resources of Siberia and the Far East.

On this, our fifth trip to the BAM, we met the builders who had visited with the general secretary of the Central Committee of the CPSU, Chairman of the Presidium of the Supreme Soviet of the USSR, Comrade L. I. Brezhnev. These men and women of Siberia and the Far East warmly recall the words of Leonid Il'ich, emphasizing the significance of their grandiose work, sounding the call for builders of the Baikal-Amur Main line.

What concrete achievements have been made in 4 years?

The work, as we know, is proceeding at several points simultaneously. From the Lena to the Amur, a total of over 600 kilometers of the main line of the BAM itself have been laid. From Ust'-Kut, temporary movement of trains will soon be open to the Baikal Tunnel. On the Tynda side, the rails

have marched westward to Khorogochi, eastward beyond Bestuzhevo. The builders of the eastern section of the main line have resolved to open through traffic of trains from Urgal to Komsomol'sk-na-Amurye a year ahead of schedule.

The 2 titanic tunnels are being driven on a broad front. The work is proceeding under very difficult conditions: broken rock, abundant groundwater, difficulties with the transportation of heavy equipment into the remote regions. But even here, the first victories have been won. 600 meters of the Baikal Tunnel and a 1,000 meters of its transportation and drainage shafts have been driven, and a vertical shaft has been completed, which will allow the work front to be expanded. Over 100 meters of the longest tunnel on the BAM, the north Muyskiy Tunnel, and 400 meters of transport and drainage workings have been completed, as well as 100 meters of vertical shaft No. 3. The plan is to drive 3 vertical shafts down to the level of the 15-kilometer tunnel, thus allowing 8 tunneling teams to work at once: 6 one the inside, 1 each from the western and eastern portals.

Along the "little BAM," to stretch from the south into Yakutia, the first section, from BAM to Tynda, is in regular use, and even now at the main BAM station, passenger trains are arriving from the old trans-Siberian railroad on schedule. The day is not far off when trains will be arriving with coal won by the miners of the Neryungrinskiy section. The rails have been laid to Berkakit, a remains to complete laying of 30 kilometers of approach tracks. Here, the tunnel has been driven over its entire 1,340 meter length, by summer it will be ready for the coal trains from Yakutia.

The results of the hard work which has been done here cannot be reduced simply to capital investments put to work and rails laid. For 4 years, together with the first 10 stakes of their field settlements, the builders have carried into the Taiga the banner of the great labor achievements of the older generation of Soviet people, the creators of Magnitka and the Turksib, Komsomol'sk-na-Amurye and Dneproges, the traditions of the workers of KamAz and the virgin lands.

"The capacity of the construction units which we have created in 4 years, the experience and mastery gained by our specialists, will allow us to increase our track-laying speed to 600 kilometers per year," the BAMmers say with confidence. "The system of management of the construction project, you might say, has been debugged. If additional financial and material resources can be provided, particularly rails and bridge structures, the speed of the work can be greatly increased. The track which has been laid allows us to advance more bravely into the Taiga.

Look at the map of our motherland. Tynda is separated from Chara by chains of mountains; fast rivers race through here and the earth, hardened by the constant cold, is as strong as granite. But the workers are successfully storming these bastions. Teams from "BAMstroimekhanizatsiya" Trust are building a dam near Olekma. They have gone half way to Chara, successfully fighting their way through the mountains. Mechanized columns are deploying their subunits at the very approachs to Chara.

... Early one morning, a helicopter took off from Tynda for Chara, carrying a group of the leaders - the manager of "BAMstroimekhanizatsiya" Trust, V. S. Belopol, the Chief of "BAMstroiput'" Administration, Yu. A. Chuprinko, the Chief of the Administration for Personnel of the Central Section of the BAM, M. A. Paragul'gov and the Chairman of the Tynda Region Executive Committee, A. K. Vasil'ev. The purpose of the flight was to inspect the work front, to check out the possibility of the Chara Valley for the production of construction materials, to determine the best way to organize the delivery of supplies to the teams of workers.

The first Secretary of the Local Regional Committee of the Party, F. A. Testov, greeted his guests warmly. Fedor Aleksandrovich spoke of business in the region, of prospecting to find the outlines of the copper deposits there. The builders were favorably impressed by the promise of the valley. Quarries of granite, needed for the construction of the Kodarskiy Tunnel and bridges have been found here, and coal is present - it will not be necessary to bring in winter supplies over hundreds of kilometers. And the hosts in the area have begun to prepare for the arrival of the BAMmers. The extra money earned by the workers of Chitinkskaya Oblast on "Lenin's Saturdays," has been used to construct a school and a hospital complex.

Strong rear support is the basis for any labor assault. But even now, after 4 years, the sam old shortcomings can be seen. The financing of this tremendous construction project must be balanced with the supply of materials and equipment and firm plans for individual tasks. This has not yet been achieved. Take, for example, the Tynda-Chara line. From the air, the "breaks" can be clearly seen at earthen dams across the rivers and streams. The Chief Engineer of "Mostostroy-10" Bridgebuilding Trust, V. N. Nagin, explains:

"Each year, we ask GlavBAMstroy and the purchasing organization to approve a schedule for construction of the entire line, broken down into years. We have as yet received no such schedule. This makes timely planning of the required increase in the capacity of the construction crews very difficult. It is not clear just how far the tracks are to be laid in 1979. Just you try to determine the resources you need, in the form of stream-crossing structures and metal, in a situation like that!"

The bridgebuilders could easily increase the capacity of their crews working toward the west. They have been allocated housing for this purpose. However, their request for funds to complete the worker settlements to GlavBAMstroy and the administrators of the construction of the BAM was answered by provision of less than one fourth of the requested funds.

The specialists and workers laboring on the banks of the Olekma have been assigned the task of throwing a railroad bridge across this turbulent stream. This difficult crossing is supposed to be ready for laying of track in 1981. To do this, they will need a concrete plant, steam-treatment chambers, a compressor plant, an electric power generating plant, a steam-generating plant and, of course, housing. All of this will require 1-1/2 million rubles, but only 200,000 have been allocated. They were rapidly used up. The future is clouded.

Last winter, several mechanized columns were simply stopped, because the planning organizations had allocated less fuel than was needed. And this was in Siberia, where the temperature drops to 40 below.

But the road is being built. Each day, the length of the track of BAM increases in the central, eastern and western sections of the line. "The faster we move, the cheaper we can build the line," states the Deputy Director of "Angarstroy" Administration, V. V. Blokhin. Cargo for the construction projects is now delivered by rail to Ul'kan. In 2 months, over 47,000 tons has traveled along these tracks. The resulting savings has been 7 million rubles: every single train replaces a hundred heavy trucks. A mobile petroleum base was set up at Ul'kan, and immediately 250 gaseline trucks, which had been making trips of almost 500 kilometers to Ust'-Kut, burning up many tons of gasoline and oil, were liberated for other work.

The section of the BAM which goes through Burtia is one of the most heavily supplied with personnel and equipment. Several underground corridors must be driven here: the Baikal, norther Muiskiy and 4 so-called "cape" or shoreline tunnels through points along the lake. How is the tunneling coming along?

Team No. 11 was "deployed" at the eastern portal of the northern Muiskiy Tunnel 4 years ago. In January of last year, team leader Yevgeniy Chetvernin broke a bottle of champagne on the tunneling machine, while the other workers applauded. The machine then bit into the rock. The teams of tunnel workers on Baikal ridge began their work somewhat earlier. But there are places where the tunneling is not proceeding smoothly, without interruption. As a result, the plan for 1977 for digging of tunnels was only 60.3% fulfilled.

In the Baikal area, 27 kilometers of the second trans-Siberian railroad will go underground. Only about 1 kilometer of this tremendous amount of tunneling has been completed. During 1978, according to the plan, another 2.2 kilometers should be done. In 4 months, the underground corridors advanced 378 meters into the mountains. The schedule called for 435 meters. Another lag is looming.

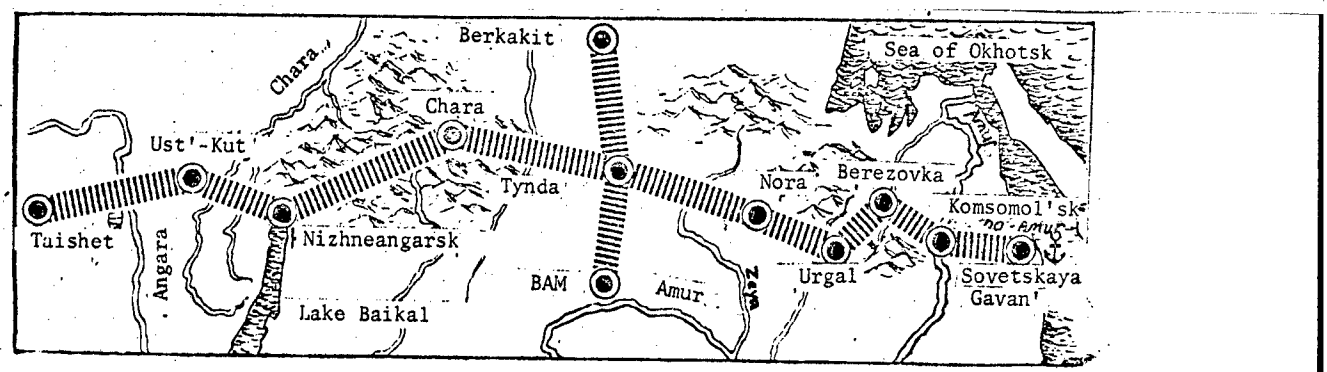
These differences between the plans and actual achievements make transportation more expensive. According to the plan, all of the most important cargo is to be delivered here by rail from the west, from Ust'-Kut, some coming up Lake Baikal in large tankers and freighters. The problem is fuel, consumed by the tunneling operations at the rate of about a hundred tons a day; it is now being delivered by tank trucks. The roads along the tracks are not suitable for this use. In Buryatia alone, the vehicles, traveling 400 kilometers to deliver their fuel, are on the road 5 days. The road is narrow, and was never intended for this heavy traffic. The bridges which the fuel trucks must cross, numbering 280, are not really strong enough.

The Ministry of Transportation Construction has issued an order to assign "zapBAMstroimekhanizatsiya" Trust the task of maintaining the road. However, the order was not accompanied by the material resources required

for the job. "Sibgiprotrans" Institute did not plan this road for the volume of traffic it carries. But today, trucks weighing almost 30 tons, carrying cast-iron tubing for the tunnels and other huge cargos, creep along this road. As concerns waterways, the lack of port facilities, storage areas and reloading equipment has forced "Nizhneangarsktransstroi" Trust to keep their own subdivisions of loaders, various services, cranes and equipment of all sorts at all of the wharves of Baikal. This has resulted in an increase in the cost of transportation.

In other words, the great construction project is experiencing not only successes, but also no little difficulties in growth. These difficulties can be overcome, if the ordering Ministries and construction organizations of the contracting ministries will coordinate their efforts better. In addition, problems of planning and financing of the construction of the Baikal-Amur main line should be solved at the USSR State Planning Commission.

In earlier reports in Pravda, we have raised the question of the need for planning the course of work in such a grandiose construction project precisely, year by year. Only after this is done, will it be possible to provide materials and equipment for the builders in a normal manner, confidently directing the work of the production teams and spending the people's money economically in the Taiga. For the Transport Construction Ministry and the Railroad Ministry, BAM is an important an honorable project. Representatives of these ministries are working at the construction sight, but these 2 departments should let nothing which occurs here escape their vision. The builders are awaiting from these ministries and the State Planning Commission a clear program of action, right up to the last day of work. Furthermore, the Ministry should strictly supervise the delivery of everything needed by BAM, the effectiveness of all expenditures and the quality of labor.



6508
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TRANSPORTATION

NAVIGATION HEAD EXPLAINS ARCTIC MARITIME OPERATIONS

Moscow Domestic Service in Russian 1530 GMT 19 Sep 78 LD

[Summary] The nuclear-powered vessel "Sibir" returned to Murmansk today after a voyage lasting many months in the icy waters of the Arctic. She guided vessels to the Yamal Peninsula and Dudinka, then, for the first time in the history of navigation, she guided the transport vessel "Kapitan Myshevskiy" along the whole of the Northern Sea route at an unprecedented early time--the beginning of summer. After this she was out at work again on Arctic routes opening up routes in icy waters for convoys of vessels delivering cargo to the north of Tyumenskaya Oblast and Krasnoyarskiy Kray. Our correspondent asked Kirill Nikolayevich Chubakov, head of the administration of the Northern Sea route, to comment on the results of the Arctic experiments in the present navigation season:

[Begin recording] In the next decade the maritime fleet will remain the main means of transport insuring the mastering and development of economic areas and gravitating toward the Northern Sea route. As you know, the length of the northern maritime route is more than 7,000 kilometers. At present the Maritime Fleet carries out transport operations along the whole length of the northern maritime route during the Arctic navigation period in a reliable manner. But this is a fairly short period--from June to October--and in various icy conditions. But on individual, particularly important sections like the areas of Dudinka, Norilsk and the Yamal Peninsula, transport operations are also carried out during the winter period.

We can say that there is navigation the whole year round to Yamal and Dudinka, but that this is taking place on only one section of the Kara Sea. The "D. E. Gizhiga" was the first to reach Dudinka in November 1970 with the help of icebreakers. This year vessels reached Dudinka on 1 May. It was three years ago that the icebreaker "Lenin" guided the first transport to Yamal in winter conditions. But come the spring of this year vessels were already conducting operations from 12 February to 7 April transporting almost 72,000 tons to the Yamal. We can bring more cargo here in winter conditions but there are sections, or to be more precise, times of the year, when it is impossible to get to the Yamal, such as when the waters freeze over or when

the ice breaks up. It is more economical to carry out transporting operations in winter conditions. Experiments are now being carried out to determine this on a correct production basis.

There is very high unloading effectiveness on landfast ice. We have record figures for unloading vessels over 24 hours--let us say 1,200 tons or even 1,500 tons. Not every port can boast such productiveness. This has been achieved thanks to it being possible to unload from both sides of vessels, for landfast ice is a wonderful mooring. This experiment of the "Sibir" guiding a transport vessel was a success. On her way, the vessel also put the SP-24 drifting station ashore. This was the third station put ashore by the Ministry of the Maritime Fleet on its own, instead of having to use aeroplanes, which are much more expensive. A whole series of experiments still has to be carried out before a definitive answer can be given to the question of whether navigation along the whole of the northern maritime route is possible throughout the year. Conditions still have to be tested along this route in November, December and January. [end recording]

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GAS TANKERS TO BE BUILT IN ITALY

Moscow MORSKOY FLOT in Russian No 8, Aug 78 pp 42-44

[Article by V. Kuzovkin: "Gas Tankers of the 'Mossovet' and 'Smol'nyy' Class"]

[Text] In 1979, the Italian shipyard Breda in Venice will build three huge gas tankers for the Soviet Union: the "Mossovet" and "Lensovet," each with a capacity of 75,000 cubic meters, and the "Smol'nyy," with a capacity of 37,000 cubic meters.

The vessels are designed to transport liquid ammonia and natural gas such as commercial butane, butadiene, butylene, commercial propane, propane-butane blends, and propylene, also other types of cargo similar to these in property. The 37,000 cubic meter "Smol'nyy," in addition, will be capable of transporting vinyl chloride.

All the vessels will be built as USSR Registry Class KM ✠ L2 [2] AL, equivalent to the Norwegian Veritas bureau class ✠ 1A1 Jce B, EO, "Liquid Gas Tanker," with a minimum cargo temperature of -48°C, maximum gas pressure in the cargo tanks of 0.25 kgf/cm^2, and a calculated gas density of 0.685 t/m^3 (the density of liquid ammonia).

The vessels will meet specifications of double-compartment unsinkability.

The cargo space of the tankers is divided by water-proof bulkheads into four holds, each of which accommodates one prism-shaped cargo tank of the self-supporting type (the tanks are independent of the ship's hull structures). In the upper portion of each tank is a dome which goes through the main deck. All liquid and gas pipelines are inserted into the tank through the dome; measuring devices and preventive valves are installed on it.

Basic Characteristics of Gas Tankers

	"Mossovet" and "Lensovet"	"Smol'nyy"
Length, meters:		
Overall	232.8	197.4
Between perpendiculars	222.0	184.5
Width, meters	35.8	29.0
Hull height, meters	22.8	17.85
Draft, meters	12.0	10.0
Capacity, cubic meters	75,000	37,000
Deadweight (with loaded ammonia at 98 percent of tank capacity), tons	55,000	27,200
Operating speed, knots	16.5	16.5
Capacity of main enginer, horsepower	21,600	16,800
Navigating distance, miles	16,000	16,000

On the upper deck in the superstructure located between cargo tanks No 3 and 4 is a gas reliquifying unit and other cargo system equipment for loading and unloading the cargo, maintaining specified gas temperatures and pressures at sea, replacing one cargo with another, remote-control and on-the-spot handling of cargo operations, and also transport safety and cargo safekeeping.

The vessels are unloaded by means of electrically-driven Dipwell submersible pumps. Each tank is outfitted with two pumps with a productivity of 650 (380) cubic meters per hour at a pressure of 130 meters liquid column. (Here and henceforth, the figures in parentheses will refer to the 37,000 cubic meter capacity vessel).

The cargo system completes loading operations in 15 hours, either returning or receiving gas vapors from or to shore.

The vessels have been designed to permit simultaneous shipping, loading, and unloading of two types of cargo.

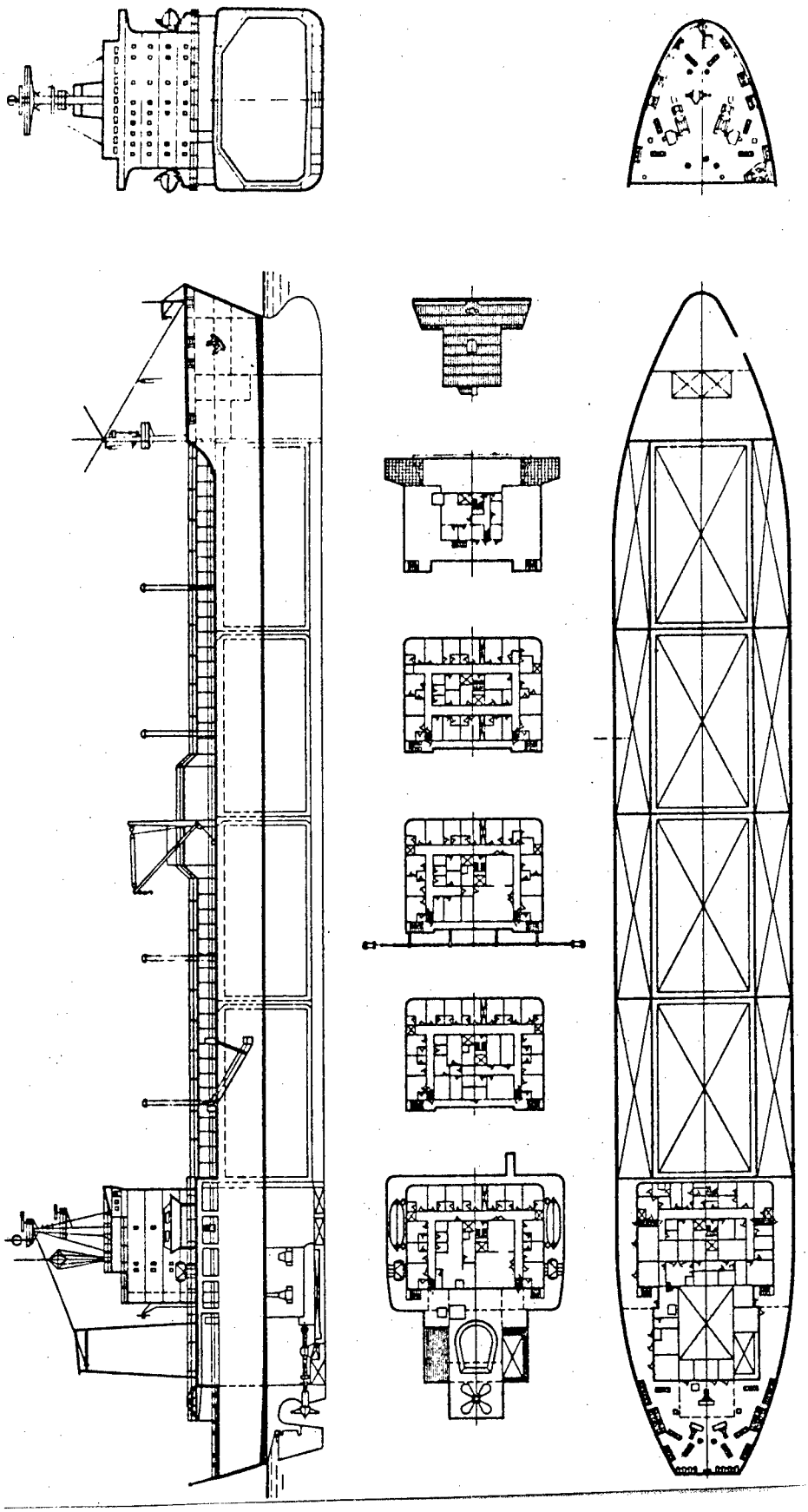
The gas reliquifying unit consists of three separate identical units, each of which includes one direct cooling system operated by means of the cargo gas and one system operating on freon-22. Each unit's capacity is about 220,000 (150,000) kilocalories per hour at a liquification temperature of -45°C (commercial propane).

To ensure the return of the gas phase to shore when loading liquid gas, and also to provide ventilation and heat the cargo tanks, the design includes ventilators with pre-heaters having a productivity of 10,000 (6,000) cubic meters per hour.

For evaporating residues of liquid cargo when filling the tanks with inert gas or air prior to replacing the cargo, and also for purposes of maintaining

normal pressure in the tanks during unloading in the case of the absence of a gas line from the shore, two evaporators are installed on the vessel, each with an ammonia capacity of 3,000 (1,600) cubic meters per hour.

The vessel has an inert gas unit consisting of two generators. One of them has a productivity of 5,000 (4,000) cubic meters per hour; the other is 50 cubic meters per hour. The oxygen content in the inert gas that is generated does not exceed 0.1 percent. The inert gas is fed into the cargo tanks and into the space between the surface of the tanks and the side of the ship. The larger generator serves to fill the tanks or the spaces with inert gas, while the smaller one is to maintain the pressure of the inert medium during the voyage.

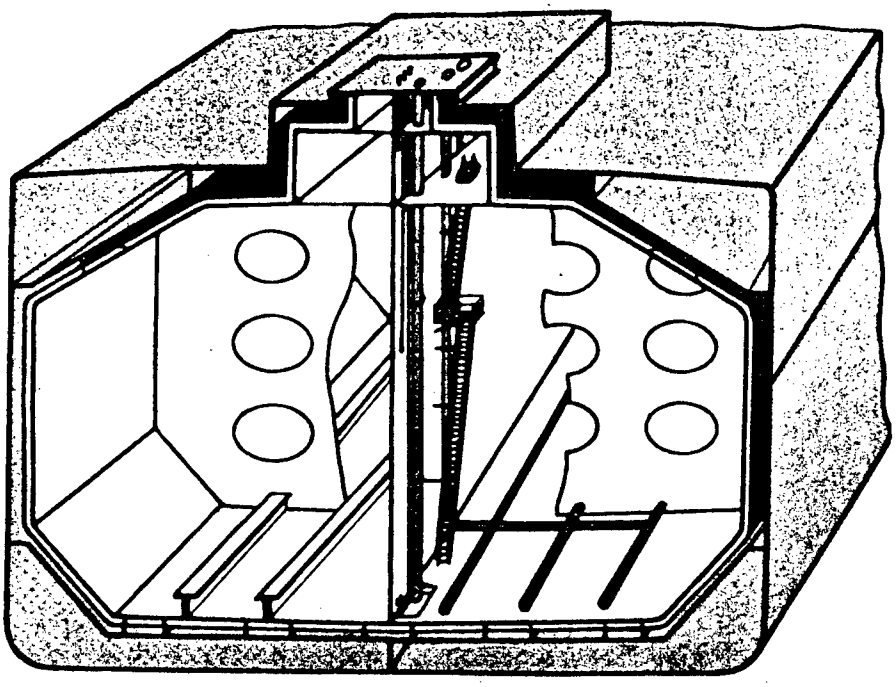


Overall Layout of the "Smol'nyy" Gas Tanker

The vessels will be equipped with main engines manufactured by the Bryansk machine building plant: 9DKRN 80/160-4 ("Mossovet" and "Lensovet") and 7DKRN 80/164-4 ("Smol'nyy").

The vessel's automation class permits maintaining the machine compartment without watches.

All of the ship's crew, consisting of 46 (43) men, is accommodated in one-man cabins equipped with toilets. Cabins are also provided for four trainees and the pilot.



Vessel's Cross Section Showing Cargo Tank

The new vessels will meet all existing international conventions and regulations governing shipbuilding, including the International Convention on Safeguarding lives at sea (1974), the International Convention on Preventing Vessel Pollution (1973), the IMCO [Intergovernmental Maritime Consultative Organization] code on the design and equipping of gas tankers, United States Coast Guard Standards on Preventing Pollution of the Seas, and also sanitary regulations and regulations governing safety engineering for USSR maritime vessels.

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CONSTRUCTION ON ODESSA PORT REVIEWED

Moscow VODNYY TRANSPORT in Russian 15 Aug 78 p 1

/Article: "Yuzhnyy Port Receives Vessels"/

/Text/ The figure of a marine stands at the place where the highway from Odessa begins its smooth descent to the valley of the Adzhalykskiy Estuary. The heroic defense of Odessa began here in August, 1941. A marine landing was made here near the village of Grigor'evka. Today, one of the country's largest industrial transportation complexes is being built at this place. Giant 30-meter-high reservoirs, each 30,000 cubic meters, 60-ton compressor hulks, 200-ton absorption and regeneration towers, the tall buildings of the engineering complex, a four-story fire station--all reflected in the water as if multiplying itself--make the picture of the construction project all the more majestic.

A delegation of frontline veterans came on board in the summer of 1973 when the first dredger string moved into the estuary and raised the first scoop of mud. Addressing them, a young dredger sailor, V. Rimlyanskiy, said:

"My father fought the enemy here, and I am proud that the honor fell to our crew to begin the communist construction project."

In these years, 20 million cubic tons of soil were moved, 100,000 cubic meters of reinforced concrete were layed, 24,000 tons of metal structures were erected, and 2,500 cubic meters of anchoring piles were driven in. First of all, thousands of tons of imported and domestic equipment were installed in the port plant being built, a complete complex of chemical enterprises including specialized moorages.

More than 6,000 people worked at the leading Komsomol construction site. Again and again in recent months, victorious reports have come from various projects on the construction site, reports in which, invariably, the words "ahead of schedule" and "first" are encountered.

A unique structure was turned over ahead of schedule, a gas-holder. First, the multiton roof of a reservoir was raised to the top of a 10-story building like a float with a pressure within capacity. The raising of the absorbers and regenerators was done together, not in parts, for the first time in the country. The dredging work in the estuary was completed almost a half month earlier. The approach canal was built in complicated open road conditions. It is 3 kilometers long, 180 meters wide, and 14 meters deep.

Now heavyfreight vessels can be moored near the port plant...

And already in May, 1977, the light carrying capacity vessels "Gleb Sedin" and"Vasiliy Kucher" delivered equipment to the moorage of the industrial transport complex. The first berthing line of the transportation conveyor began to operate. Almost twice as fast as the norm, the crew of the floating crane "Bogatyr'" unloaded equipment from the vessel for the production of liquid ammonia, each piece weighing up to 150 tons.

The new maritime commercial port on the Black Sea, which was recently named Yuzhnyy and the settlement of chemists, port workers, sailors, and construction workers is yet another manifestation of the successful realization of the immense program of economic and social development outlined by the 25th Congress of the CPSU. Today, the builders are turning over to the chemists a symbolic key to the first of the plant's buildings.

But this is not just a ceremonial act. It is a workers' baton, which is passed on from hands to hands. It is an order to multiply labor glory with new production feats. And, as if in confirmation of these words, on 29 June, Yuzhniy port received the first vessel for the loading of ammonia. It was the Latvian tanker-gas carrier "Buldurk."

Foreign delivery of ammonia has begun in accordance with agreements with governments which are participating in the installation of the Odessa port plant on a compensating basis.

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BRIEFS

NEW TANKERS PLANNED -- The Soviet merchant fleet will soon receive tankers with a deadweight of more than 60,000 tons. The Kerchenskiy shipyard imeni B. Butoma will begin their construction. Famous historical events remembered as port stages of the Great Patriotic War and the names of Soviet generals will be immortalized in the names of the vessels. The tanker "Pobeda" is the first in the new series. Then the sailors will receive the petroleum carrier "Marshal Vasilevskiy." Both vessels are attached to the Novorossiyskiy Steamship Line. The ocean newcomers will enlarge an already existing flotilla of 300 vessels, the names of which have preserved the memory of the heroic exploits and limitless love for the motherland of the Soviet people at a time of threatening military ordeals. The names of Heroes of the Soviet Union, famous military leaders, participants in the partisan movement, and courageous Komsomol and Pioneer members who perished in the struggle with the fascist aggressors are embodied now in ships ploughing the waters of all the oceans. The memory of veterans of the merchant fleet who manifested bravery in unequal battles with the enemy on the sea lanes of the front are engraved on board more than 70 vessels. [Text] [Moscow VODNYY TRANSPORT in Russian 23 Feb 78 p 4] 8885

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